An Address
ON
A NEW ANTISEPTIC DRESSING.

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MR. PRESIDENT AND GENTLEMEN,—When I last had the honour, five years ago, of addressing this Society at the request of its President, I brought before you an attempt I had made to utilise the powerful antiseptic properties of corrosive sublimate without the great disadvantages attendant upon its highly irritating qualities. I had ascertained that when corrosive sublimate precipitates albumen the precipitate is not, as had been generally supposed, an albuminate of mercury—that is to say, a combination of albumen as an acid with mercury as a base; in other words, that the albumen does not displace the chloride from its combination, but that the bichloride of mercury retains its properties intact, the albumen being loosely associated with it, in a species of solid solution, if I may so speak.

Further, I had found that this precipitate, even after drying, is capable of being dissolved in the serum of the blood, and that the solution in blood serum is powerfully antiseptic while not irritating. I proposed and brought before you a new dressing in the shape of what was termed the sero-sublimate gauze, charged with a solution of corrosive sublimate in the serum of the blood. This gauze gave very satisfactory results, both in my own hands and in those of surgeons in places so far distant as Poland and Spain. Nevertheless, it was not all that could be desired by any means; it was somewhat harsh mechanically; it was not very absorbent (a serious defect), and one of the materials of which it was made (the serum of horse's blood) was not always easily obtainable. I was, therefore, well disposed to look for something superior.

A few weeks after that communication was made to the Society, a firm of manufacturing chemists, Messrs. Gibbs, Cuxson, and Co., wrote to me saying that they had found that if chloride of ammonium or sal ammoniac in quantity equal to one-fifth part of the weight of the bichloride of mercury was added to the mixture of bichloride of mercury and blood serum, the result was a much more fluid preparation than I had obtained. If I used a preparation of one part of bichloride of mercury to 100 of blood serum, I got a thick liquid somewhat difficult to diffuse in gauze. They therefore suggested that by adding sal ammoniac in that proportion I should get a much more workable arrangement. On consulting chemical works I found that one-fifth of sal ammoniac was exactly sufficient to produce with bichloride of mercury the salt long known to chemists as sal alembroth, a double salt of bichloride of mercury and chloride of ammonium. I naturally wished to ascertain whether this addition of sal ammoniac would impair or even destroy the antiseptic properties of the bichloride of mercury. I therefore made experiments on the point, and I found that the sal ammoniac associated in the form of a double salt with the bichloride of mercury did not by any means impair its antiseptic properties; on the contrary, it improved them, so far at least as concerned that which we have to deal with as surgeons, an albuminous fluid like the serum of the blood. Sal alembroth and bichloride of mercury proved to be exactly equivalent weight for weight as antiseptics in such a fluid. Each had to be used in normal serum of specific gravity of about 1025 in the proportion of about $\frac{1}{1000}$ in order to prevent altogether the development of micro-organisms. Those who are acquainted with Koch's researches will consider this a very high proportion. Koch has shown that in a solution destitute of albumen $\frac{1}{100000}$th part of bichloride of mercury is sufficient to prevent the development of organisms; but when we have albumen present in the solution the case becomes altogether altered. Albumen interferes with the antiseptic action of corrosive sublimate, and thus in serum of the blood of specific gravity 1025 we require, as I have already said, as large a proportion as about $\frac{1}{1000}$ instead of $\frac{1}{100000}$.

When the albumen is small in amount, less corrosive sublimate proves efficient. Thus, in a case of spermatocele, where the specific gravity of the fluid was exceedingly low—only 1007—I found that $\frac{1}{1000}$, just intermediate between the proportions required for blood serum and water, was efficacious. On the other hand, when blood-corpuscles are mixed with the serum in the same amount as in the circulating blood, making the albuminoid substances much more abundant than in serum, we require proportionately more of the corrosive sublimate; at least 1 to 500 is required for the purpose of preventing development. This is a most important consideration after an operation. In the first twenty-four hours the discharge contains a large amount of blood-corpuscles as well as the serum; whilst, at the same time, it is the most copious—more copious than it will be in any subsequent day, provided all goes well aseptically. It is, therefore, an exceedingly serious consideration that in the first twenty-four hours we have a discharge which in both these respects tests our antiseptic more severely than it will ever be tested again, both from its abundance and from its quality. Still, the sal alembroth, whether used with blood serum or with a normal mixture of serum and corpuscles such as that obtained by whipping the blood of the ox so as to get rid of the fibrin, proved equivalent antiseptically to bichloride of mercury.

I may perhaps say in a few words how the experiments were conducted. For the purpose of ascertaining whether a given antiseptic can or cannot prevent development of organisms, a very simple mode of experimentation suffices. What we have to do is to ascertain whether it is *inhibitory*, not whether it is *germicidal*. The only special apparatus required for such experiments is a warm chamber which can be kept pretty constantly about the temperature of the human blood. Beyond this a few stoppered bottles, with well-fitting stoppers—perhaps half-ounce stoppered bottles—are really all that is required. Into a series of such bottles serum of the blood, to the amount, say, of 150 grains, containing solutions of the antiseptic of different strengths, is introduced. These are all inoculated by means of a small syringe pipette with the same quantity, say, $\frac{1}{10}$th of a minim, of some potently septic liquid, such as blood serum in a state of advancing putrefaction. The bottles are placed in the incubator, and then, if development takes place, that is evidence that in the bottle in which it occurs such proportion of the antiseptic as that bottle contains is inadequate; if no development occurs, we have proof of antiseptic efficacy. The transparency of the serum permits a recognition of the development of the organisms, which invariably causes opacity. If we have no change in this respect, if the serum maintains its transparency, at the same time keeping its odour unimpaired, and, further, if microscopic examination of any little sediment there may be shows that it contains no organisms, we have clear evidence that the antiseptic in the proportion concerned has proved efficacious.

Now if the sal alembroth was equivalent to the bichloride of mercury, weight for weight, that shows that the sal alembroth was really more efficacious as regards the quantity of bichloride of mercury it contained. The bichloride of mercury having the sal alembroth added to it, and also water in the double salt that is formed, is increased in atomic weight very considerably; and therefore if an equal weight of alembroth is equivalent in antiseptic action to bichloride of mercury, that shows that the bichloride of mercury is made more efficacious in the blood serum by the addition of the chloride of ammonium. The chloride of ammonium in combination protects the bichloride of mercury, so to speak, to a certain extent, from the interfering influence of the albumen.

At the same time, the sal alembroth proved much less irritating than bichloride of mercury. Experimenting on my own skin, I ascertained that it has certainly not half the irritating property of corrosive sublimate. The chloride of ammonium attached to the bichloride of mercury, while it protects the bichloride in some degree from the influence of albumen interfering with its antiseptic operation, prevents it also from acting so powerfully on the human skin. And thus the union of sal ammoniac with corrosive sublimate had the double advantage of rendering it both more efficacious antiseptically and much less irritating.

Hence I was at first much pleased with sal alembroth. But it soon appeared that there were certain disadvantages attending it. These depend very much upon its excessive solubility. It is essential for a satisfactory antiseptic dressing that the antiseptic should not be readily washed out of it by the discharge. Sal alembroth is so exceedingly soluble that it is washed out with the greatest ease; thus we were always, even if we used large masses of sal-alembroth gauze, in fear that when the discharge was copious the antiseptic would disappear, say, within the first twenty-four hours, and then the septic mischief would have an opportunity to enter. There was another disadvantage from this great solubility. When the discharge entered a mass of the sal-alembroth dressing it dissolved out the alembroth from it, passed into another part of the dressing, and there took up another portion of the sal alembroth, and so went on from part to part of the dressing, until if the discharge was copious and the dressing large, as it must be when the discharge is copious, before the discharge got to the edge of such a dressing it became so concentrated a solution of the sal alembroth as to be highly irritating. We have seen, for instance, after the removal of the mamma, when the first dressing was changed on the following day, that there has been over the scapula and the neighbourhood a huge blister. No doubt that was only a temporary inconvenience. We never had the discharge again so great as in the first twenty-four hours, but still it was a great inconvenience.

Such being the disadvantages of sal-alembroth dressing, I was disposed to seek for something better. I may say that I myself have never published anything in favour of sal-alembroth dressings; I have never been satisfied with them. It has leaked out that I have used them, and they have come into extensive employment, but never with my published sanction.

In the course of the following year I made various experiments in the hope of rendering sal alembroth more useful in different ways, with which I need not trouble you, but without much success. In February, 1886, my attention was drawn by Mr. Martindale, of New Cavendish-street, to cyanide of mercury as possibly a valuable antiseptic, and, if so, having this advantage, that it did not coagulate albumen. I therefore proceeded to make experiments with cyanide of mercury, and I found, indeed, that in inhibitory power it was remarkably efficacious. I have said that with blood serum sal alembroth or bichloride of mercury is required in about $\frac{1}{1000}$th part. I found that the cyanide of mercury kept blood serum with only $\frac{1}{10000}$th part perfectly free from organic development, in spite of inoculation with potent septic fluid, for a month, when the experiment ended. I may remark that we have in the cyanide of mercury a striking instance of the discordance that there may be between inhibitory power and germicidal power in an antiseptic. In inhibitory power the cyanide of mercury is, as we have seen, exceedingly high; but in germicidal power it turns out to be very low. Mr. Cheyne has made experiments for me, which have shown that even $\frac{1}{1000}$th part in water is incapable of destroying the germs of bacteria. Still, the inhibitory property of cyanide of mercury was a most important point if in other respects the salt were not disadvantageous; but, unfortunately, it proved to be so highly irritating that the greater irritating property of the cyanide of mercury more than counterbalanced its superior inhibitory power. It naturally occurred to me that the cyanide of mercury might perhaps combine with some other cyanide and form a double salt, having advantages corresponding with those presented by sal alembroth as compared with bichloride of mercury. I tried the soluble double cyanide of mercury and potassium, but found it quite too irritating. I here again consulted Mr. Martindale, and he mentioned to me that in "Watts's Dictionary of Chemistry" it is stated that a double cyanide of mercury and zinc of very slight solubility may be formed by mixing together a solution of the double cyanide of mercury and potassium with a soluble salt of zinc, the zinc taking the place of potassium. I therefore obtained some of this material, and proceeded to make experiments on it. I found, in the first place, that it was quite insoluble in water. This seemed at first extremely unpromising. It was soluble in about 150 parts of glycerine, but insoluble in water. I found, however, that it was soluble in about 3000 parts of blood serum, and therefore it was possible that it might work antiseptically. I made experiments to ascertain whether such was the case or not, and I found that this zinco-cyanide of mercury, as we may call it, had really most important antiseptic properties; that in the proportion of $\frac{1}{10000}$th part it kept blood serum perfectly free from the development of organisms for eighteen days, in spite of potent septic inoculation.

I then tried experiments with serum and blood-corpuscles as presented in the whipped blood of the ox. On instituting comparative experiments between sal alembroth, cyanide of mercury, and this double cyanide, I found that with the alembroth all proportions lower than $\frac{1}{100}$th putrefied within twenty-four hours after septic inoculation, while with the cyanide of mercury $\frac{1}{100}$th part sufficed to preserve the serum and corpuscles from putrefaction. At the same time, with the double cyanide I was much surprised and much pleased to find that $\frac{1}{1000}$th, half as little again, was sufficient to keep the mixture of serum and corpuscles permanently free from putrefaction. It may be said that the absence of putrefactive odour is but a rude test. There may be organisms developed without any putrefactive odour being present; that is perfectly true. At the same time, if in a given experiment we find that with one agent putrefaction occurs within twenty-four hours with $\frac{1}{100}$th part, while with another salt there is no putrefactive odour after the lapse of weeks with $\frac{1}{1000}$th part, we have pretty conclusive evidence that, so far as the mixture of corpuscles and serum is concerned, you have a more efficacious antiseptic in the latter. I therefore proceeded to prepare dressings of this new substance, diffusing it—for it is an exceedingly fine powder—in water with a little glycerine added to fix it, to prevent it from dusting out. If you simply diffuse it in water, and pass gauze through it, with nothing more than the water, the result is that you have gauze which, with the slightest touch, gives out the double cyanide in a cloud of dust, which produces not only inefficacy of your dressing by loss of the proper proportion of the substance, but becomes in the highest degree irritating to the nostrils of those who are near. A little glycerine, however, prevented the double cyanide from thus dusting out. I proceeded to try it in practice. I confess I did not dare to use it—considering its very slight solubility in serum—unmixed, and I associated with it some of the very soluble cyanide of mercury; and with this cyanide gauze we tried various experiments in the way of dressing, and got some admirable results. But then, on the other hand, there were disappointments. We found, for one thing, now and then very troublesome pustules as the result of a peculiar kind of irritation. Another disadvantage was that occasionally we got suppurations, coming on at a late period in the case, such as we had never been accustomed to with our carbolic dressings. A case might go on perfectly well for, say, ten days, and then suppuration might occur about a stitch track and spread perhaps further; and sometimes the healing of cases was greatly protracted by this late suppuration. In consequence of these two circumstances I gave up the use for the time being of this material.

I then directed my attention to biniodide of mercury, which has been highly spoken of for its antiseptic powers, and which has the advantage over alembroth of being comparatively little soluble either in water or in serum. I found that the iodide of mercury gauze answered our purpose very well so far as its antiseptic properties were concerned, but that it had the great disadvantage of producing irritation, which it was extremely difficult to control. In order to control it, we interposed between the iodide of mercury gauze and the skin unprepared gauze, except in so far as it was steeped in a weak solution of bichloride of mercury (1 to 4000). But we found that different skins differed greatly in liability to this irritation. The iodide of mercury, which is so very slightly soluble, as you know, in water, is much more soluble in serum, and the solution in blood serum becomes irritating. In consequence of this, we had the same disadvantages from irritation as we had with the alembroth; and although, as in the case of the alembroth, this was only a transient inconvenience, I became dissatisfied with the iodide of mercury gauze. There was, however, one point of considerable interest, both theoretically and (as it turned out afterwards) practically, which we found in this investigation with the iodide of mercury. If we simply charged with iodide of mercury, say, from a solution in spirit of wine, and then applied the gauze so prepared, we found that the particles of iodide of mercury tended to gravitate down towards the skin, and there produce the most fearful irritation. It was absolutely necessary that

it should be fixed. I tried various means, and among the rest a solution of starch, and then there came out this remarkable fact, that if a solution of starch is used with one of the ingredients employed for forming the biniodide of mercury by mixing a solution of iodide of potassium with solution of bichloride of mercury — if you dissolve the iodide of potassium in a weak solution of starch—the iodide of mercury thus formed in the nascent state associates itself with the starch particles in the most intimate manner, and the starch becomes entirely precipitated along with the iodide of mercury. If you take a drop of the red fluid formed by mixing these two solutions, and place it on a piece of calico, the watery material is absorbed by the calico and passes into the surrounding parts without colouring them, while the red spot with its insoluble iodide remains. If now you take a little iodine water, and apply it to the part of the calico moistened by the fluid that has exuded, you find that the iodine water produces no blue colour of iodide of starch, showing that there is no starch in the fluid that thus oozes out and leaves the iodide of mercury behind; whereas, if you take a solution of starch and apply it as such to a piece of fabric, as far as the fabric becomes moistened so far do you get a blue colour with the iodine. Here we have, as it seems to me, a somewhat analogous case to the so-called albuminate of mercury. We have the starch particles associated with the particles of iodide of mercury; the starch remains as such, the iodide of mercury remains as such, still they are attached to each other. And so the result was that when such a red solution produced by these two liquids was used for charging a gauze, the iodide of mercury was stuck to the gauze by means of the starch, and we had a most satisfactory arrangement in that respect. The iodide of mercury could not be washed out by water, nor did it in the least dust out. The value of this observation with reference to our present subject will appear shortly.

Being dissatisfied with the iodide of mercury, I turned my attention again to the double cyanide of mercury and zinc. Looking back to my notes, I found such evidence of its superior antiseptic properties that I felt that we had deserted this material too readily. In the interval we had had other experience of importance with the alembroth gauze. Occasional late suppurations had at first occurred under its use, just as was the case with the double cyanide gauze. These, however, had ceased to trouble us after my attention had been directed to the expediency of always using mercurial dressings in a moist condition. If they are used dry, the mercurial salt having no volatility, and having no power, therefore, of destroying any micro-organism in contact with it, whether derived from the manufactory or elsewhere, there could be no security that the dressing when applied was free from living organisms. This important object could, however, be infallibly attained if the dressing were used moist with an efficient germicidal solution. I put this idea into practice, and during the two years that have since elapsed we have never on any single occasion had to complain of these late suppurations. Might not the same immunity attend our cyanide gauze if we adopted with it the same expedient?

The other objection to this double cyanide gauze had been the irritation which it occasioned. Might not this have been due to the simple cyanide, which, as I have said, I used along with the double cyanide? The simple cyanide is highly irritating, and, just as with the sal alembroth, being freely soluble, it can be taken up by successive portions of discharge, and, when the discharge is free, may come to be in so strong a solution as to irritate. On the other hand, experiments on my own person had shown that the powder of the double cyanide might be kept applied to the skin for an indefinite time, whether moistened with water or with blood, without occasioning any irritation whatever. If this was really the explanation, and if, as our experiments seemed to indicate, the double cyanide could be trusted of itself, we might easily get rid of all irritation by using a double cyanide dressing moistened with a weak solution of bichloride, say, 1 to 4000, which, while it is securely germicidal, can never irritate. But here arose a new difficulty. I have told you that when we tried this double cyanide in a gauze at first, in order to prevent the dusting out, with its great inconveniences, we used glycerine; but if we were to moisten the gauze with 1 to 4000 solution of corrosive sublimate, we should run great risk of washing out the glycerine, and then the double cyanide would be free to dust out on drying. And, besides that, it must be admitted that the glycerine arrangement was not a good one, independently of that consideration, inasmuch as when the discharges flowed into the gauze they would wash away the glycerine, and then the double cyanide might be washed out also, and so fail in one of the most important requisites of an efficient antiseptic dressing—the storage of the antiseptic in the dressing in spite of the discharge. How was this difficulty to be overcome?

Now came to our aid our experience with the iodide of mercury and the starch. Might it be that the particles of the double cyanide would attract starch as those of the iodide had done? It did not seem very likely, seeing that cyanogen is not known to have the special affinity for starch that iodine has. Still, I thought I would try the experiment. I prepared the double cyanide by mixing a solution of the double cyanide of mercury and potassium with a solution of sulphate of zinc. I tried this with one of the ingredients dissolved in a starchy solution, and, to my great satisfaction, I found that the precipitated double cyanide left a supernatant liquor almost absolutely free from starch, and that the particles which thus fell, the double cyanide with the starch associated, fixed themselves to a gauze in such a way that it did not in the least dust when dry. Not only so, but immediately after being charged with the precipitate diffused in water it might be washed in the wet state without the double cyanide being washed out of it, so closely did the starchy particles stick the double cyanide to the fabric. It is of great importance that in some way or other the double cyanide should be washed, because at the same time that an insoluble double cyanide is formed there are produced other double cyanides which are soluble, and which are in the highest degree irritating; they must be washed out.

Well, I thought I had thus attained my object, and that by mixing starch with one of the two solutions necessary for forming this double cyanide and allowing the precipitate to deposit itself, then pouring in more water, and, after precipitation, decanting and repeating the process another time, so as to get rid of all the irritating soluble salts, and then diffusing the precipitate through a gauze, I should have all that I desired. But when I tried to get this done by a manufacturer I found that I got blundering after blundering in such a way as to make the thing practically hopeless. There was nothing for it but in some way or other to get the double cyanide from the chemist as a definite article, and then in some way devise a means of fixing that powder of the double cyanide to the fabric. I therefore naturally tried whether a solution of starch would answer this purpose, whether the starchy particles would associate themselves with the double cyanide particles, not only in the nascent state, which we had before tried, but also when the already formed double cyanide was mixed with the starchy solution. I found that it did so; that when a starchy solution was stirred up with the double cyanide in the proportion of one part of starch to two of cyanide, the starch was almost all precipitated, and the precipitate so formed adhered to the gauze in the most satisfactory manner.

But, though its adhesion was satisfactory enough, it turned out that the precipitate thus formed aggregated into a tenacious mass, which could not be diffused uniformly through the gauze, and here I was again at fault. This difficulty was overcome by first charging the gauze with the double cyanide powder diffused in water, and then transferring it to a starchy bath. This at once fixed the cyanide in the gauze; and, whereas, before it was placed in the starchy bath, the slightest squeeze made a milky fluid exude, no sooner had it been well penetrated by the starchy liquid than you might squeeze it as you pleased, and nothing came out but a clear fluid. I was much pleased with this, and it is in this way that I have prepared the gauze that I have used for the last twelve months, both in the hospital and in private practice. Still, this method had its disadvantages. When the gauze had been passed through the fluid in which the double cyanide had been diffused without any starch, it required very tender handling. If you gave it a squeeze, out came a quantity of double cyanide; and it was plain that, although one might do it oneself satisfactorily, if we trusted to the manufacturers there would be an utter uncertainty as to what quantity of material might ultimately remain in the gauze.

Only lately has this difficulty been surmounted. It occurred to me that perhaps if the starch were first blended with

the double cyanide and then dried and reduced to powder, if water were afterwards added to this dried dissolved starch associated with the cyanide, there might not be the same tendency to lumpiness and difficulty of diffusion. I found that the process did not answer quite as I hoped in the first instance, in this respect; that the dried starch and double cyanide were extremely difficult to scrape off from any plate on which they were put to dry, and also very difficult to pound up and to diffuse for charging the gauze. But I got rid of these inconveniences by means of sulphate of potash, used for the same reason as in the preparation of Dover's powder—viz. that it is an inert substance, but with sharp, gritty particles. Mixing a pretty strong solution of starch with the double cyanide powder, and adding to this a quantity of pounded sulphate of potash, the result is that you get a material which, after drying, is easily scraped off by the manufacturer, and easily reduced by him to an impalpable powder, which is then readily diffused in water, and makes a perfectly uniform gauze; being mixed in large quantity with water in order to charge the gauze, the sulphate of potash is practically got rid of, and if any of it remains it does no harm, because it is inert. Thus we have the means of easily charging fabrics with this double cyanide.

I have spoken of diffusing this preparation in water, but in reality we employ for this purpose the 1 to 4000 solution of bichloride of mercury, which fortunately does not in any way interfere with the process. I may remark that the double cyanide, like the simple cyanide of mercury, though very efficient as an inhibitor, cannot be trusted as a germicide. There are different ways in which absorbent gauze such as this may be charged. One is to pass it folded in about sixteen layers through a trough, such as the one before me, which I have myself used, having a bar near the bottom to ensure the gauze being kept well under the liquid. It is then, as soon as you please, squeezed to press out superfluous liquid, and then, if wanted for immediate use, a simple way is to place the masses of gauze—say, six-yard pieces—in a folded sheet, turn the folded sheet over them, and roll it up. The folded sheet then absorbs the still redundant liquid, and you have moist gauze ready for use in five minutes. For the use of the ordinary surgeon it will probably be best to have the gauze dried, on the understanding that it is again moistened with 1 to 4000 sublimate solution before being used. Here is a sample of the gauze in the dry state, which, you see, does not give off dust even when freely handled.

Other articles may be charged as well as gauze with this substance. The double cyanide being perfectly unirritating in its own substance, there is no objection to having an excess of it. If you take, therefore, some of the preparation and stir it up with 1 to 4000 sublimate lotion, so as to produce an opaque liquid, and put linen rags into it, and then place them in a folded towel to take out the excess of liquid, you have your dressing ready prepared then and there. It can thus be very easily worked on an emergency.

We have seen that the double cyanide requires about 3000 parts of blood serum to dissolve it. If, therefore, it is present in a gauze in the proportion of about 3 per cent., you will easily understand that blood serum may soak through such a gauze time after time without washing the ingredient all out; so that it is a material which is admirably stored up in the dressing. That is one of its three great advantages, the others being that, while trustworthy as an antiseptic, it is completely unirritating. In actual practice the few layers placed next to the wound are washed in a solution of carbolic acid 1 to 20; this washes out the corrosive sublimate, which, though present in small amount, might irritate the wound to some extent. The carbolic acid soon flies off, and there is left in the application next the wound merely the unirritating double cyanide, and under this we find that not only do wounds, the edges of which are brought accurately together, unite beautifully by first intention, but even granulating sores heal by the gradual process of cicatrisation from the edges—heal by scabbing in a way that we have never seen so satisfactory under any other dressing.

Having satisfied myself that this was really a useful material, I proceeded to request a manufacturing chemist to provide it for me on a large scale. Messrs. Morson and Son, of Southampton-row, kindly undertook to do this, and I have to thank them for the great pains they have taken in carrying out experiments on this subject at my suggestion. Their manager, Mr. Taubman, soon informed me that in his opinion there was exceedingly little mercury in this so-called double cyanide of mercury and zinc. Very little mercury could be got from it on testing in comparison with what would be obtained if it were a true double salt. He asked if I was sure that the cyanide of zinc was not, after all, the thing that was efficacious? Was the idea of the double cyanide altogether a delusion? I need not say how much pleased I should have been if such had been the case—if we could have had the cyanide of zinc without any poisonous mercury in it as an antiseptic. The cyanide of zinc was a perfectly definite compound, there could be no mistake about it. I proceeded to make experiments, and I found, indeed, that cyanide of zinc had antiseptic properties. I made, for instance, experiments of this kind: I took a piece of glass tube like that which I hold in my hand, and packed it in two inches of its length with a piece of gauze charged with cyanide of zinc only, and then, holding it vertically, poured serum of horse's blood into it till the gauze was fully moistened; and then poured more in, till a quantity dropped out from the lower end equal to that which had produced saturation, the upper part of the gauze being thus thoroughly washed with the serum.

I then inoculated the top of the gauze with a potent septic drop. I had another such tube packed with gauze that had no cyanide of zinc in it, and I inoculated that in the same way after pouring serum upon it. I then put each into a well-fitting stoppered bottle, so as to prevent any evaporation, and placed them in the incubator. At the end of four days I opened the two bottles. That which contained the gauze without the cyanide of zinc stank, and, on taking portions of the gauze from either one end or the other, squeezing them and examining under the microscope the fluid that escaped, there were seen teeming multitudes of bacteria of various sorts. The bottle with the cyanide of zinc gauze, on the other hand, had a pure odour of hydrocyanic acid, which this gauze always has when moist. I then examined drops squeezed from both ends, and I found no bacteria in the clear serum that was pressed out, not only from the lower end, but even from the upper end, in the immediate vicinity of the inoculating drop, and where the gauze had been drenched repeatedly with the serum.

Now that, so far, is a result that no other antiseptic had ever given me. Take iodide of mercury, for example. Comparatively insoluble as it is, if you pour blood serum upon it in such profusion you wash the iodide of mercury out, and if you inoculate septically the part so washed you induce bacteric development. The test applied was, of course, an extremely severe one. In actual surgical practice the discharge which pours into the dressing is pure to begin with, supposing the wound to be aseptic at the outset. The septic agency only acts from without where the dressing has not been washed by the discharge, and in a far milder form than here, where a potent septic drop was used. Thus we had clear evidence that the cyanide of zinc really is an antiseptic. On the other hand, it turned out to be not so powerful antiseptically as our double cyanide so-called. In order to compare the two salts I made another experiment similar to that last described. I packed three pieces of glass tube with gauze in two inches of their length, one of the gauzes being charged with cyanide of zinc, and another with the so-called double cyanide (neither of these gauzes having been treated with solution of bichloride of mercury), while the third gauze was unprepared. Serum of horse's blood was poured into the upper end of each vertically-held tube till it thoroughly soaked the mass of gauze, after which each gauze was inoculated septically at the centre of its upper end. The tubes were then placed vertically in stoppered bottles in the incubator. It happened that in the septic liquid used for the inoculation that I used there was, among other organisms, a species of streptococcus which had a remarkable power of producing an acid fermentation in blood serum. After four days I proceeded to examined the contents of the three tubes. In the unprepared gauze there was utter putrefaction. In the gauze prepared with cyanide of zinc only, no putrefaction had taken place, but acid fermentation had occurred: both at the upper and lower end of the gauze litmus paper was reddened on application to the serum. In the putrid gauze turmeric paper was most intensely reddened, much more so than by normal blood serum, an alkaline fermentation having occurred there. On the other hand, with the gauze that contained the double cyanide, with mercury as well as zinc, both at the upper and lower end the turmeric paper was reddened exactly as it was by

the normal blood serum. This state of things continued the next day; but on the following day, six days after the commencement of the experiment, I found that at the upper end, in the vicinity of the inoculated spot, this double cyanide gauze purpled litmus, while at the lower end it still reddened turmeric. At the end of seven days the same condition persisted. After eight days, however, both the upper and lower end of the gauze purpled litmus. This peculiar septic organism, with the power of producing acid fermentation in serum, had gradually worked its way, in spite even of the cyanide of zinc and mercury; but the cyanide of zinc and mercury, you observe, had been much more efficacious than the cyanide of zinc alone. The cyanide of zinc had prevented the development of organisms that produced putrefaction, and only permitted the development of the coccus that produced acid fermentation. Cyanide of zinc and mercury had for several days prevented all development. This was proof, therefore, that the mercurial element in our compound was valuable, and that we could not dispense with it.

It may be thought an unsatisfactory thing that there should have been any organism able to work its way thus through a gauze charged with our antiseptic. But I may remark, in the first place, that, as above stated, we tested the material exceedingly severely; in the second place, that it was a long while before the organism penetrated the gauze even for a short distance; and, in the third place, that penetration of micro-organisms through such a dressing into wounds does not seem to occur in practice, seeing that in the year during which I have used this antiseptic in my surgical work at King's College Hospital we have had no single instance in which we have had any reason to suspect septic change in the deeper parts of our dressing; we have had no instance in which deep-seated suppuration has occurred in an operation wound made through unbroken integument. If we have had any pus at all in such cases, it has been from the surfaces exposed between stitches or at situations where drainage-tubes have been inserted, where what I have termed antiseptic suppuration has occasionally shown itself, and even this in very slight degree. Such being the case, I feel not only permitted, but bound to bring this material under the notice of my professional brethren.

As to the composition of this so-called double salt, it is for the present uncertain. This much is already established: that the cyanide of mercury is in very much smaller proportion to the cyanide of zinc than "Watts's Dictionary" would lead us to expect from a true double salt. But what the precise composition of the salt is we do not yet know. I am having it investigated by the Pharmaceutical Society, who have kindly undertaken the work.

There is another use for this material besides the charging of dressings. The powder moistened with a weak solution of corrosive sublimate may be rubbed into hairy parts, when it will convert the hairs into an antiseptic dressing. Not long ago a medical friend of mine brought his wife to me with no less than seven sebaceous cysts in the scalp, requesting me to remove them. Having washed the hair with 1 to 20 carbolic acid solution, I simply passed a comb over each tumour in the line where I was about to transfix without shaving at all; and, after taking out the cysts, rubbed in some of the moistened powder into the hair in the vicinity. I then applied a dressing of cyanide gauze, and I was glad to learn that all the seven wounds had healed without disturbance.

We have now in the hospital a case of psoas abscess, shown to be of spinal origin, not only by the history of the case and the symptoms, but by the discharge of a portion of bone with the pus. That case is pursuing a course which, allow me to say, psoas abscesses will pursue in the great majority of cases, if the surgeon uses a trustworthy antiseptic, and takes the same pains with dressing to the last as at the outset; that is, he will find his trouble rewarded by the complete cure of these formerly incurable cases. I say this because I grieve to think that psoas and lumbar abscesses still seem to be regarded as hopeless affairs by many surgeons. In this man's case the temperature has never been affected in the least; he has put on flesh rapidly; the discharge, after the purulent and curdy matter that existed originally in the abscess was got rid of, has been of a serous character, and is in small and diminishing quantity. But the opening made for the discharge is in the vicinity of the pubes, and the pubic hairs used, under such circumstances, to be a constant source of anxiety to us unless frequently shaved away. Here we rub in at each dressing a little of the moistened cyanide, and convert the hairs into an antiseptic application.

I will not at present enter into the details of the preparation of this material; these will be supplied in a note on a future occasion.[1]

The sketch which I have given you of this investigation, though it has, I fear, wearied you, conveys but a small idea of the toil it has involved. There are those who still believe that the use of antiseptic substances in surgical practice is always useless, if not injurious. The germ theory of septic diseases is indeed now happily established incontrovertibly. All now admit that septic mischief in our wounds depends upon the development of micro-organisms in them derived from without. But the gentlemen to whom I refer are, more or less logically, disposed to trust everything to the antiseptic powers of the human tissues.

I believe I happened to be the first to direct attention to the antiseptic agency of living structures, and there is, perhaps, no one who attaches greater importance to it than I do. Without it, surgery in former days would have been absolutely impossible. Still, I know too well from experience that it cannot always be trusted, and that the use of antiseptic adjutants is in the highest degree important; and I have the satisfaction of knowing that there is among you a constantly increasing number who, when they have operated on an unbroken skin, with a fair field around for the application of their dressings, if they see septic inflammation occurring in the wound with its attendant dangers, know that it is their fault or the fault of the antiseptic appliances at their disposal. To those among you who are impressed with this conviction I offer the dressing which I have described as the most satisfactory that I have hitherto met with; and I venture to hope that you will regard it as a not unwelcome addition to your resources.

OSTEO-ARTHRITIS AS AN IMMEDIATE SEQUEL OF RHEUMATIC PYREXIA.[2]

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CLINICAL observation has established a pathological connexion of great practical interest. It has been long known that chronic rheumatism and gout may prepare the way for osteo-arthritis by lowering the textural force of the joint structures, and thus leading to morbid change of a degenerative kind. In people of the so-called tubercular diathesis, or who have near kinsfolk distinctly "consumptive," repeated rheumatic attacks may beget a condition commonly called *rheumatoidal;* and this, again, may gradually pass into the more complete and incurable state which enjoys the official title of Osteo-arthritis.

This clinical doctrine being fully recognised, the precise point of this paper may be formulated as follows:—A man or woman in early middle life has two or three attacks of acute rheumatism close together, affecting (perhaps) knees, elbows, or wrists; he is more or less in bed for several months; the pyrexia is rarely higher than subacute; and there are periods of quiescence during which he not only feels comparatively well, but really *acts* well in the sense of "muddling about," somewhat crippled it may be, but with a convalescent energy deserving praise. Nevertheless, the patient does not wholly emerge from a quasi-rheumatic condition. And it is of such sufferers that we constantly ask ourselves, especially in our Mineral Water Hospital, *is this case going off rheumatoidally?* is he marching in the direction of osteo-arthritis? An exceedingly practical question. Two groups of clinical phenomena appear to coalesce; the latter looks a mere postscript of the former, continuous in time and quality; in reality it is so different that the treatment calculated to moderate the one may only increase the other. The pyrexia is gone, but the pulse remains quick, or even quicker; the true rheumatic sweating has passed away, but a new type of sweating begins; and we are conscious of a fresh series of clinical phenomena, some of which are a mere continuation of the old (such as pain and enfeeblement of joints), and

[1] This note will appear in our next issue.

[2] Read before the Bath and Bristol Branch of the British Medical Association, on Thursday, Oct. 31st, 1889.

others are the commencement of an entirely different order of symptoms.

Now our plea at the outset of this discussion is, that what has been described as acute rheumatoid arthritis has no clinical existence. The state of things so denominated is merely a *rheumatic prodroma of rheumatoid arthritis*, preparing the way and leading on to it in subjects predisposed. There is no such predisposition in the vast majority of cases; rheumatic pyrexia comes and goes, leaving perhaps some trace of medical damage, which is usually quite remediable.[3] But, after coming and going two or three times, the true rheumatism may become something else, not merely something chronic in the room of something acute, but a slow grade of an essentially different arthritic trouble, the steps of sequence to it being caught only by a practised eye. So far as joints are concerned, the transition is probably not marked at all; what was swollen and painful remains swollen and painful; the objective lesson is not easy to read. But we pick up the threads of diagnosis by studying the concurrent facts. The pyrexia is slight, and obeys other laws; pigmentary stains and spots appear, and the neural signs of pain and muscular atrophy possess new significance. The weakness and incapability of movement increase quickly. In doubtful cases the dynamometer should be always used; little impression is made upon it by the palsy-stricken muscles of the hands. But it must be confessed that, through inattention or lack of insight, the clinical condition of the patient may undergo an entire change, without a single note being made of it by anyone.

The therapeutic issue of these considerations is of the highest moment. When the true rheumatic storm has subsided, it is not only injudicious but very hurtful to go on prescribing salicin and the salicylate salts, and potash or soda in any guise. The iodides are equally useless, and perhaps equally injurious. Salicin is bound up with rheumatism by the closest ties; it is one of the magnificent advances of recent years; and so it follows that any arthritic affection which looks like rheumatism suggests a salicin treatment. Or if a distinct gout has preceded the osteo-arthritis, the chance is that colchicum and alkalies are continued. The case is now called "suppressed gout," or "latent gout," or any other dark veil of words which are algebraic signs of what we do not understand. The physician who is blind to what is going on before him had far better leave his patient alone. I cannot speak too strongly of the mischief done by this wrong system of medicine. The drugs thus wrongly given are not "phantom" drugs, idle for good or harm, but agents of positive evil. They lower the nerve tone and impoverish the blood quality; and, worst of all, they occupy that precious time during which the ingravescent osteo-arthritis should be fought with its proper weapons. When the mistake is found out, the sad legend "too late" has to be written. The unhappy patient is a life-long mourner of an irrevocable fate; and the doctor who errs from want of experience has leisure to think over an imperfect diagnosis.

To grasp the point of time when one pathological current stops and another begins is to hold the key of the position. We push aside the so-called specific remedies; we tranquillise the nervous and vaso-motor systems by quinine, belladonna, and strychnine; as soon as possible cod-liver oil and arsenic are brought to bear, to be followed at no long interval by a stable preparation of iron. There must be corresponding changes in the diet, which ought to be rich in nitrogenous and fatty material. And if we have been so unwise as to order alcohol under the poisonous garb of brandy or whisky, we shall now recommend a moderate amount of generous wine—at least four ounces daily of dry old port or of matured burgundy.

And now comes the hygienic and therapeutic touch of the Bath thermal Waters. Let them be used with every care. I am obliged to admit that hydro-therapeutics and shampooing are sometimes overdone. The delicate atrophied creatures who submit to these processes require to have them performed in the gentle manner of reclining baths, quiet douches, and domestic *massage*. Most good is to be expected from our thermal Waters when there is an antecedent history of rheumatism or of gout. In other cases, when osteo-arthritis is distinctly a sign of local or general deterioration, internal medicinal treatment is of at least equal value. One more caution. So-called counter-irritation (with iodine, for example) should never be done *immediately over* an affected joint. Such a process is essentially unscientific, for it creates an artificial excitement and hyperæmia in the very structures which we should try to keep in a quiescent mood.

The accumulation of clinical material at our thermal Spa affords a splendid school of study in osteo-arthritis. The subject is complex, with many bye-paths reaching among the thickets of physiological pathology. A complete scheme of the neurology of osteo-arthritis has yet to be unfolded. The arthritic disease, paradoxical as it sounds, may not be the central lesion at all; it may be only one member of a group of lesions, and not the most important. The writings of Sir Dyce Duckworth and Dr. Ord have contributed much to the solution of our difficulties; and rays of light are coming from many other quarters.

Bath.

[3] The term chronic rheumatic arthritis should be strictly confined to the arthritic lesions produced by true rheumatism; the confusion of our terminology has caused confusion of ideas.

ELEVEN CASES OF INTUBATION IN YOUNG CHILDREN.

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IN publishing the following small number of cases, I do not wish to claim that the results are more satisfactory than those of tracheotomy, but having had the opportunity of watching the cases constantly, my object is to bring into prominence the more important events which occurred during the treatment of cases of laryngeal obstruction by intubation. O'Dwyer's instruments were used in all, the size of the tube selected being in accordance with his scale. It will be seen that tracheotomy was resorted to in those cases in which it seemed that an open wound would give better hopes of relief.

CASE 1.—Frances H——, aged thirteen months, was admitted to hospital on Dec. 12th, 1888. Previous history: Patient, who was not completely weaned, was seized with cough on the day previously to admission, and had an attack of dyspnœa during the evening. An emetic was given with partial relief. When admitted at midday her condition was that of a feeble, rickety child, with stridulous breathing, retraction of chest wall, and cyanosis; membrane on both tonsils. Intubation was immediately performed, with complete relief of dyspnœa and retraction. At 4 P.M. the tube was coughed out; she breathed well for one hour, then dyspnœa returned, and at 6 P.M. the tube was replaced with complete relief. Temperature 104·4°.—13th: At 5 A.M. much coughing and slight dyspnœa. The tube was removed, cleaned, and replaced. Breathing was then rapid but easy. Crepitations heard at right base. Temperature 105·4°. Taking food well.—14th: No return of dyspnœa, but sank and died at 2 A.M.—*Necropsy:* Patches of membrane were found the whole length of the respiratory tract. Pneumonia and consolidation of lower lobes of both lungs.—*Remarks:* A feeble child with urgent dyspnœa; the symptoms referable to laryngeal diphtheria completely relieved by intubation.

CASE 2.—Lilian B——, aged four months, was admitted to hospital on Jan. 8th. Previous history: Had been suffering from bronchitis for a month. Croupy cough began on the morning of the day of admission. Much dyspnœa, stridulous cough, and recession of the ribs when admitted. No membrane seen on fauces. Coarse râles heard over both lungs. Temperature 100°.—Jan. 9th: Dyspnœa diminished, but increased during afternoon, with extreme recession of the chest wall. The ordinary emetics failed to induce vomiting, so an O'Dwyer's tube was inserted, but without relieving the symptoms, and was removed after a brief period. Temperature 100°.—11th: Temperature rose to 105°, and the patient died at 6 P.M.—*Necropsy:* Intense congestion of the larynx and treachea, and numerous patches of membrane. Both lungs solid, with acute pneumonia.—*Remarks:* In this case the probabilities of the dyspnœa being due to the condition of the lungs was fully recognised. Intubation was performed more as a means of diagnosis than with any real hope of relieving the symptoms.

CASE 3.—Maud S——, aged two years and two months, was admitted to hospital on Jan. 13th. Previous history: Sick on Jan. 11th, dyspnœa began on the 12th. On admission,

at 4 P.M., the patient was suffering from extreme dyspnœa and recession. The fauces were coated with membrane. Temperature 101°. Intubation was performed immediately, with complete relief. She took food freely. At 10 P.M. the tube was coughed out; but she breathed well until 2.30 A.M. on the 14th, when dyspnœa returned, with frequent cough and much mucus. Intubation was again practised, but with very partial relief, so tracheotomy was performed, with marked improvement resulting. Fine crepitations heard in lungs. Temperature 103°.—15th: No return of recession, but she sank and died at 2 A.M.—*Necropsy:* A continuous lining of membrane throughout larynx, trachea, and small bronchi. Lungs collapsed, slight pneumonia. Bronchial glands large and caseous.—*Remarks:* In this case, as in Cases 4 and 8, owing to the presence of much mucus, an O'Dwyer's tube failed to relieve the dyspnœa, so tracheotomy was resorted to, the larger lumen of the tube affording a freer vent.

CASE 4.—Ernest W——, aged sixteen months. Previous history: The patient had been in this hospital since September, 1888, with repeated attacks of broncho-pneumonia.—Jan. 22nd: During early morning the voice was hoarse, and in the afternoon marked stridulous breathing and recession with extreme dyspnœa occurred. No membrane seen on fauces; no enlargement of glands. At 4.30 P.M. an O'Dwyer's tube was inserted, followed by violent coughing and increased recession. The tube was removed, and for a brief period the breathing was easy, but the cough frequent and much mucus. At 5 P.M. the dyspnœa again became urgent, and tracheotomy was performed, small pieces of membrane being removed with a feather. The tracheotomy gave immediate relief, and the patient progressed favourably until the 24th, when he seemed to lose strength, and died on the 25th.—*Necropsy:* No membrane on fauces, but below the level of the vocal cords a continuous lining of tough membrane. Lungs studded with tubercular deposits; bronchial tubes dilated to the size of a goosequill.

CASE 5.—Ellen B——, aged eighteen months, was admitted to hospital on Feb. 13th, 1889. Previous history: Patient had recently recovered from scarlet fever. She seemed feverish, and croupy cough began on the evening prior to admission. When admitted, at 9.30 P.M., there were urgent dyspnœa, cyanosis, and marked retraction. Temperature 101°. Intubation was at once performed, with immediate and complete relief. She took food well during the night, but gradually became weaker, and died at 10 A.M. on the 14th.—*Necropsy:* Extensive deposit of membrane and double early pneumonia.—*Remarks:* The same remarks apply here as in Case 1. No return of dyspnœa, and death occurred from asthenia.

CASE 6.—David H——, aged three years and four months, was admitted to hospital on April 6th, 1889. Previous history: "Feverish attack" on April 1st. Shortness of breath on the 3rd. Had a "choking fit and became livid" on the 6th. When admitted, at 10 P.M., he was suffering from cyanosis, marked dyspnœa and retraction, and crowing inspiration. Intubation was performed immediately, with marked relief. Fell asleep soon afterwards. Temperature 100 8°.—April 7th: Slept quietly all night. Fit of coughing at 9 40 A.M. and the tube was thrown out. Continued to breathe quite easily for two hours, when the dyspnœa returned, and the tube was replaced. In introducing the tube, a cylindrical cast of the trachea was found in the throat and removed. Temperature 101°.—8th: Tube removed at 10 A.M.; the cough continued croupy for some days, but intubation was not again required.—May 2nd: Discharged well.—*Remarks:* Intubation was performed twice. The tube was *in situ* thirty-four hours altogether, with an interval of two hours' relief after having been coughed out.

CASE 7.—Grace T——, aged four years and six months, was admitted to hospital on April 12th. Previous history: Had suffered from enlarged tonsils since previous summer; sore-throat one week. Had breathed badly for twenty-four hours. When admitted, at 11.15 A.M., the child was fat, with blue lips, crowing inspiration, and retraction of ribs. Fauces and pharynx were covered with membrane. After intubation the child coughed for a few minutes, then complete relief followed. Temperature 99°. At 10.20 P.M. there was frequent coughing, with much mucus. The tube was removed. Some membrane and much mucus were coughed up. The dyspnœa returned, and the tube was replaced after one hour.—13th: Passed a good night. Took food freely. Temperature 103°.—14th: Breathing quite easy; tube removed, but after one hour dyspnœa returned, and the tube was replaced.—16th: Tube coughed up during the evening, and dyspnœa returned very rapidly; after fifteen minutes tube replaced.—19th: An attempt was made to get her to do without the tube, but it had to be reinserted half an hour afterwards.—21st: Tube taken out, and was not again required.—May 3rd: Discharged well.—*Remarks:* Intubation was performed five times. The tube was coughed out once, and removed three times (once for the purpose of cleaning), before it was no longer required. The tube was worn nine days altogether.

(To be concluded.)

ON THE

SYMPTOM OF PAIN IN SLOW INTRA-PERICARDIAL HÆMORRHAGE.

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II.

IN a previous number of THE LANCET—in that, namely, of July 11th, 1885—I had occasion to direct attention to certain cases of slow intra-pericardial hæmorrhage, in which severe abdominal pain appeared, *inter alia*, to be the most salient and distressing symptom. Three instances were there adduced, occurring in the course of medico-legal practice, which had been caused respectively, (1) by rupture of an aortic aneurysm; (2) by rupture of the right auricle; and (3) by a stab of the left ventricle; a brief description of each case, with the detailed result of its post-mortem verification, being duly appended. It is to be noted that while, on the one hand, no attempt was made to ignore or minimise the just signification of certain other of the more usual and recognised symptoms of this mishap, so on the other hand the suggestion was carefully avoided that intense abdominal pain in these cases was to be regarded as at all an invariable or even common accompaniment. And this with good reason, or we should have heard more about it. Indeed, in the very last case of which I have cognisance, ably reported in a contemporary by Mr. Samuel Clarke Noble of Kendal, the patient, who lived five days and a half with a ruptured left ventricle, "only complained of pain at the præcordia," and had, therefore, deductively, no abdominal pain at all. My sole endeavour was to set forth that it was at least an occasional feature of this form of thoracic hæmorrhage, occurring with such concentrated intensity as to mask the real issue, and, in short, prove diagnostically misleading; "that," I quote the passage, "there may also occur in a certain proportion of cases of slow intra-pericardial hæmorrhage this symptom of abdominal pain, so marked as to lead either to a diagnosis of peritoneal or enteric (inflammatory) mischief, or to the refusal of a death certificate" (on suspicion of poison). Now I have another case (the fourth), attended by Dr. Lawrie of Ayr, and reported with his approval, which further illustrates this proposition. I had no knowledge whatever of its history or details till, after death, it became the subject of medico-legal investigation on the part of the Crown.

At 6.30 A.M. of May 7th, 1888, MRS. F. B——, a field worker, about forty-eight years of age, walked a distance of three miles and a half to her work in the fields. The police information states that for some years she had had occasional attacks of pain in the chest and breathlessness, but in the intervals was apparently well and fit for her usual employment. At 8 A.M.—that is, an hour and a half after leaving home—she became suddenly very ill, vomiting repeatedly, and complaining of much pain in her "belly." She was taken home in a cart, but medical aid was not obtained till next day. Dr. Lawrie, who then saw her, depones: "I saw deceased at 10.30 A.M., and found her in bed complaining of very severe pain in the epigastric region, but not in the heart. She told me she had been taken ill in the fields the morning before, and had suffered the same pain as she had now; that she had vomited before being brought home, and had done so considerably since (no vomited matters had

been preserved); and that she had suffered this epigastric pain all night long, indeed since ever she took ill. She was in so much agony as to be unable to explain anything. I thought her suffering from inflammation of the stomach or peritoneum, and said so, ordering stimulants, as there was great debility, and poultices to the abdomen. There was nothing noticeable in the character of the breathing. I had barely left the house, not having gone far, when I was recalled, and was only in time to see deceased expire, after an illness, I understand, of about twenty-six hours. It subsequently occurred to me that the death might have been due to irritant poisoning, though, from the absence of marks on the mouth, not by the more usual corrosives. I understood the vomit had all gone on the floor." In short, a certificate of death from natural causes being, in the circumstances, properly refused, I was instructed by order of the Procurator Fiscal, to make, in conjunction with the medical attendant, whose precognition I have just quoted, a post-mortem examination.

The following are detached excerpts from the report, selected solely in respect of their relevancy, and irrespective of their order of sequence in the body of that document.

"The body, which was that of a female about fifty years of age, was well nourished, bordering on obesity. ..... There were no marks of vomiting or staining of the lips, tongue, or hands. ..... The stomach and gullet, which were ligatured and removed for separate examination along with the upper portions of the small intestine, were all empty, healthy, and normal, exhibiting no erosion or inflammatory action on their lining surfaces. Some adhering mucus in the stomach had the usual acid, but no other distinctive, odour.... The other abdominal organs and the peritoneum were healthy and normal. ..... On opening the chest the pericardial sac was observed to be livid and tensely distended with large clots and dark fluid blood, which entirely surrounded and compressed the heart. This effusion was discovered to have found exit through a minute opening in an aneurysm of the size of a bantam's egg, involving the base or commencement of the aorta, that portion of it—namely, which is situate within the pericardial precinct. The aneurysm occupied the front and left lateral portion of the vessel, but may be considered to be of the spurious, diffuse, or consecutive type; for by a process of ulcerative thinning an opening of the size of a threepenny-piece communicated with a sacculated condition of the corresponding portion of the pericardium itself. The outer or cardiac wall of the tumour, therefore, consisted of the pericardium only; and it was found that, on its anterior aspect, a minute opening not larger than a single grain of rape seed, was the point where the hæmorrhage had gained access to the pericardial cavity. The aorta exhibited the usual appearances of atheromatous disease. ..... The heart was of normal size, but pale, soft, and friable; its right and left cavities almost empty and partially contracted, its valves fairly competent; pericardial serosity, of course, ungaugeable. ..... Opinion: From the foregoing examination of the body of the said F. B., we are of opinion that death was caused by the rupture of an aortic aneurysm; and, from the small size of the rupture, that death did not occur suddenly, but after the lapse of some hours."

This is the case, and it only remains to add that for its elucidation it is a fortunate circumstance that a post-mortem was ordered. It certainly would not have been but for the suggestion of poison which I have recorded. My Scottish *confrères* will bear me witness when I affirm that in this country the medico-legal post-mortem examination has, from a scientific or pathological point of view, ceased, within the last few years only, to exist; and that in respect of its criminal relation it is, in effect, no longer investigatory and detective in its function, but has degenerated to a merely confirmatory procedure. That is to say, that the fact of a death being sudden and unaccountable is now no longer held, as formerly, to demand or justify a post-mortem examination; that as the authorities are not concerned to know the exact scientific cause of death, the mere looking at the outside of the body, and thereafter granting a certificate of "death from natural causes," is all that the nearest medical practitioner is expected to do when directed to proceed to examination, and he is, without the smallest experience, quite as competent as the most highly trained medical jurist for the task; so, indeed, is the nearest village constable. It is, in point of fact, now laid down—which of course disposes of the discretionary power which procurators fiscal are assumed by their instructions to possess—that no post-mortem examination shall be ordered in a given case, unless some "circumstance of suspicion" appears in the police report. On the criminal aspect of this subject I may have something to say on another occasion, and have only referred to it here in order to accentuate the value of medico-legal investigation on pathological grounds.

Ayr, N.B.

ON THE

EFFECT UPON THE HUMAN BODY OF A DIET CONSISTING ENTIRELY OF LEAN MEAT AND WATER.

BY GEORGE HERSCHELL, M.D. LOND.

CAN life and health be sustained indefinitely upon a diet of lean meat and water without any farinaceous food at all? Physiologists tell us that it cannot; experience seems to negative their assertion. It is highly desirable that this question should be cleared up and finally set at rest, both from a practical and from a purely scientific point of view. A diet of lean meat is now being advocated for several purposes in practical medicine, and it is of the highest importance that we should know for certain for what period it can be carried on without injury to the patient. In this country it is being used chiefly for the reduction of obesity, but in New York Dr. Salisbury and several other physicians are making an extensive use of a diet consisting entirely of lean meat and water, not only for that purpose, but also in the treatment of dyspepsia, phthisis, ectasia of the stomach, and in the absorption of new growths. In the latter case Dr. Salisbury claims that by increasing the metabolism of the body recently formed tumours can be absorbed. In order to procure these results, he and his followers continue the use of a diet consisting entirely of lean meat and water for a period of at least several months, and, they state, not only with perfect impunity, but with absolute benefit to the general health of the patient.

Let us now turn to Landois and Stirling, which we may accept as one of the most recent of the standard text-books on physiology, and see what they say upon the subject. On page 482: "To obtain the 448 grms. of carbohydrates necessary to support him, a man must eat 2261 grms. of beef." Again, on page 485: "A man is not able to maintain his metabolism in equilibrium on a purely flesh diet; if he were compelled to live on such a diet, he would succumb. ..... If a man is to obtain 280 grms. C. from a flesh diet, he must consume, digest, and assimilate more than two kilos in twenty-four hours. *But our digestive organs are unequal to this task for any length of time.*" The reason why I am bringing this subject before the notice of the profession is that there are now being exhibited at the Westminster Aquarium a family of savages who have lived all their lives on nothing except lean meat, fish, and water, without succumbing, as we are told they ought to have done. Those interested in the physiology of diet have now an opportunity which they have never had before in this country of investigating a purely carnivorous man.

They are a family of cannibals from Terra del Fuego, belong to the tribe of Onas, and consist of five adults and two children. The adult male is thirty years of age, of normal weight and development, takes little or no exercise, and eats every twenty-four hours 5½ lb. of lean cold boiled horseflesh, 2 lb. of raw fish, and one or two eggs, and drinks about four pints of water at the most, probably rather less. As near as can be ascertained, he passes about the normal quantity of urine in the twenty-four hours, and a sample passed about three hours after his last meal at night yielded the following results on examination. Sp.gr.1020; faintly acid, no albumen, no sugar, an excess of phosphates, but urea fifteen grains to the ounce, and uric acid one-sixth of a grain per ounce only!

A careful study of the case presents to us the following facts for our consideration. 1. It is generally admitted that the inhabitants of cold climates must eat more fat and farinaceous food than those of warmer parts. Now in the island where these people come from there is nearly always snow on the ground, and notwithstanding that they reject

fat from their diet, and take no starchy food at all. 2. It is generally believed that the only conditions under which a diet of meat can be indulged in with impunity is when it is accompanied with a large amount of exercise, and the ingestion of a considerable quantity of water. Now these people do not drink anything like an excess of water, and they take hardly any exercise at all. They spend most of their time in sleep. It would be an interesting point to determine whether their drowsiness might not possibly be due to auto-intoxication from leucomaines developed during digestion. 3. This case entirely disposes of the allegations of those philosophic traditionalists who affirm that excess of meat in the food produces uric acid and gout. Amongst these meat-eaters gout is unknown. Dr. Mortimer Granville, almost alone, I believe, of modern physicians, has always maintained that excess of meat does not do so. I find in his recent work[1] the following: "It is on these hypotheses mainly that the prevailing method of treating gout by limitation of flesh food is founded (i.e., that urea and uric acid as they appear in human urine are to be regarded as serial or progressive products of the dissimilation of the nitrogenous elements of the food). It is inexplicable to me that this policy should find favour with physicians who base their treatment of disease on physiological principles, seeing that there are good reasons for believing that much more depends on the changes that take place in the elements of the food after digestion than upon their form when consumed." 4. Finally, I would suggest that the consideration of this remarkable tribe of people inevitably forces us to one of two conclusions—either that the generally received opinions on the subject of diet as contained in works on physiology are unreliable and should be revised; or that it is possible so to alter the metabolic mechanism of the body by hereditary influence as to enable the individual to exist in defiance of all the ordinary physiological laws of nature.

West-street, Finsbury-circus, E.C.

[1] Gout in its Clinical Aspects, p. 10.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

ON A CASE OF HÆMOPHILIA.

By JAMES YOUNG, M.B., C.M.

THE following case of hæmophilia may not be uninteresting, as illustrating in a striking degree a few of the more generally recognised facts in the causation of this remarkable diathesis.

Some time ago a child (male) was brought to me suffering from hæmorrhage from the gum, which, the mother informed me, had continued for three days. The child was well nourished, and, being only some thirteen months old, was consequently in the period of primary dentition. As far as the mother of the child knew, he had received no injury, but the blood issued from a minute point just above two recently cut upper incisor teeth. All over the child's body were marks of various sizes produced by contusions which had been followed by large extravasations of blood, and it was stated that the merest pinch caused an ecchymosis which lasted for several days. The usual means for arresting the bleeding were adopted, and after some difficulty this was effected. The point, however, which is most interesting in connexion with this case is the family history. The child's mother belonged to a family of "bleeders," but neither she nor her mother had at any time suffered in that way. One brother, however, died at the age of six from hæmorrhage caused by one of his fingers having been caught in a door. The injury was in itself slight, but the hæmorrhage, as stated, proved fatal. Another brother at the age of seventeen, after the extraction of a tooth, suffered from continual bleeding for several days. Although this did not immediately cause death, yet, as a result of the exhaustion produced by the hæmorrhage, he was unable to cope with an attack of acute enteritis from which he suffered soon after, and which ended fatally. Two brothers also of the grandmother of the child died from bleeding, which resulted from similar trivial causes. One died at the age of twenty-four from extraction of a tooth, the bleeding in this case lasting for a week; while the other, when sixteen months old, fell and cut the tip of his tongue between his teeth, thereby producing hæmorrhage, which also lasted for a week, at the end of which time he too died. In the former case it may be mentioned that the regular medical attendant knowing the family failing, wisely refused to extract the tooth, which, however, was done by a dentist to whom the patient was unknown. In all these cases, I have been informed, the merest scratch of a pin would cause bleeding which lasted for days, and the slightest bruises produced most extensive ecchymoses. It is to be noted also that the persons affected were all of the male sex, and that while the mother in both cases was the medium through which the diathesis was propagated, yet in neither instance did she herself suffer.

Stewarton, N.B.

CASE OF STRANGULATED INGUINAL AND FEMORAL HERNIA ON THE SAME SIDE.

By GUY TYRRELL, M.R.C.S., L.R.C.P. LOND.

THE following case presents features which I think are sufficiently unusual to be worth recording.

T. T——, aged sixty-four, labourer, in August, 1888, had consulted me suffering from a strangulated inguinal hernia, which had made its appearance the day before, and which with a good deal of difficulty I reduced by taxis. Since that time he has worn an inguinal truss. On Sept. 12th, 1889, after working in a hop field, he suffered great pain in the abdomen, and in the evening noticed a swelling below his truss. He had constant attacks of sickness during the night, the pain still being very severe. In the morning he came to see me, still wearing his truss. At first I supposed that the old rupture must have slipped down under his truss, which was a new one, but on making an examination I discovered a femoral hernia about the size of a walnut protruding below the truss. The inguinal ring could be felt free and unoccupied. After making an ineffectual attempt to reduce it by taxis, I sent him into the Malvern Rural Hospital. After his arrival there the symptoms subsided to a great extent, there had been no return of the sickness, and the pain had almost disappeared. After holding a consultation with Drs. Dawson and Holbeche, and making another effort to reduce by taxis, I decided to operate at once without waiting for further or more urgent symptoms. The operation was performed under the influence of chloroform. On opening the sac a little blood-stained serum escaped, and the intestine was seen to be considerably congested; the stricture was very tight, but after incision allowed the intestine to be returned. A catgut drain was inserted, and the wound closed with three silk sutures. The symptoms subsided immediately after the operation, but there was no action of the bowels till the third day, when an enema was given. The wound healed by first intention, and the sutures were removed on the fourth day, the catgut drain having been removed the morning after the operation. The patient was discharged after having had a special truss made to cover both the inguinal and femoral rings.

The remarkable features of this case are, firstly, the occurrence of an inguinal and femoral hernia on the same side, both being strangulated; and, secondly, the subsidence of the acute symptoms in spite of a very tight strangulation, showing that symptoms cannot be depended upon as a guide to operation, and emphasising the rule that, other means having failed, the sooner the operation is performed the better.

Claremont, Great Malvern.

A CASE OF POISONING BY STRYCHNIA.

By C. M. FEGEN, M.R.C.S., L.R.C.P., &c.

THE following case is of some interest in its medico-legal aspect, as it raises the question as to whether an egg is "meat." The Act of Parliament says: "No poisoned flesh or meat" may be laid. Certainly it is not flesh, but is it meat? The facts of the case are as follows.

Early (3.30 A.M.) on the morning of April 26th the deceased, with three companions, went out pheasant-egg stealing. At 4.15 A.M., when in a plantation, they picked up two hen's eggs which had been poisoned and put down to kill vermin. These were thrown away, as the deceased noticed that the one he picked up (or had given him) had a hole in the side, whereupon the other was thrown away also. Sixty yards farther on he found another hen's egg, which he sucked. Four or five minutes afterwards he began to complain of a feeling of nausea (?), and this was almost immediately followed by cramp in the legs, which rapidly ascended to the thighs; while rubbing the latter he suddenly fell shrieking to the ground. His shrieks and spasms continued, and from his cries he evidently felt himself to be dying. He kept calling for water, and could not bear to be touched, and in this state he continued until one of his companions came into Brandon, and, having procured a hand-cart, returned for him. At 6 A.M. I saw him outside his house on the cart. He died seemingly from exhaustion, while being lifted into his house. I was told he had had a fit, that was all. His face was livid, lips blue and shrivelled, pupils dilated, muscles of the whole body quite relaxed.

Ten hours after death I made a post-mortem examination. Rigor mortis was very pronounced, and on section the abdominal and pectoral muscles seemed to be in a state of extreme tension. There was no priapism. The blood throughout the whole body was extremely fluid and of a very dark colour. The heart, which was slightly fatty, was pale in colour and flaccid, the right side being full of fluid blood; the left side empty; no clot whatever in heart. The lungs were slightly congested. The liver showed signs of drink. The kidneys and spleen were healthy. The stomach (which appeared empty) and intestines I handed to the police. On opening the brain I found the meninges gorged with dark fluid blood and the brain and upper part of spinal cord, with its meninges, presented signs of great congestion. On the stomach being analysed one-third of a grain of strychnia was discovered—also traces in the intestines. On one of the other eggs being analysed, it was found to contain from two to three grains of strychnia. The jury returned a verdict of "Death by misadventure."

The following is a summary of points of interest in this case. The poison was taken on an empty stomach, and the symptoms commenced about five minutes afterwards. Cramp commenced in the feet and legs, ascending to the body. The poison taken was from two to three grains presumably, the quantity found being about one-third of a grain. The duration of life after the first onset of symptoms was one hour and a half. There was no spasm at the time of death, but very marked rigor mortis afterwards. The blood was dark and fluid. The brain and meninges and spinal cord were greatly congested.

Brandon.

DISLOCATION OF THE RIGHT HIP IN A BOY AGED SEVEN YEARS AND A HALF.

By T. KENNEDY DOUGLAS, M.B., C.M.

THE two very interesting cases of this accident in children, described in your issues of Oct. 12th and Nov. 2nd, induce me to record a third that occurred in my practice here this summer.

On June 11th last, James D——, aged seven years and a half, carrying a younger brother "shoulder-high," was pushed by a companion while trotting along the road. He lost his balance and fell, his right leg doubling up under him. He found his leg useless, and had to be carried home on a shutter. On my arrival shortly after, I found the right leg presenting the usual signs of dislocation of the hip-joint—great swelling in the gluteal region, rotation of the limb inwards, the right knee looking, as it were, at its fellow, and the sole of the right foot rotated over the dorsum of the left. The boy was dreadfully afraid of being touched. Under chloroform, with his father steadying the crests of the ilia, I grasped the ankle and thigh, bending the knee and raising the limb towards the abdomen, and rotated it inwards towards the middle line and over the other limb, and as I began the movement of extension the head of the femur rolled home with an audible rumble. The reduction was so rapid that I was struck with the ease and simplicity of the method of manipulation. I bandaged the little fellow's knees together for a couple of weeks, and in a short time he was up and running about as nimble as ever.

No mention is made in the report of the Taunton Hospital case whether an anæsthetic was used. I notice both writers report that the reduction was accompanied with "an audible click." In my case "click" would be too sharp to describe the sound, and hence I described it as a "rumble." I remarked to the father at the time that the bone going in was like the rumble of distant thunder.

Scone, N.B.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Procemium.

ST. MARY'S HOSPITAL.

A FATAL CASE OF HYDROPHOBIA.

(Under the care of Mr. EDMUND OWEN.)

WE bring forward this week another fatal case of hydrophobia, chiefly with the object of impressing the necessity of recourse to the Pasteurian method of treatment in the case of bites from rabid animals. When writing previously on this subject[1] we drew attention to the facts before the profession. "In those where the presence of rabies in the animal was proved by the experimental test, it appears that out of 1077 persons treated by inoculation there has been a mortality of only 1·39 per cent. Still more striking as a test of the value of the treatment is the result of inoculations in cases of the severest type—viz., those bitten on the head and face,—where a mortality rate of from 60 to 80 per cent. has been lowered to one of 3·89. Further reductions are also to be made, and with justice, by the elimination of cases where too long a delay occurred between the infliction of the bite and the inoculation." Dr. Arnaud Ruffer[2] entered into the question, and gave full information on the subject of Pasteur's method of treatment. We may mention one statement of facts which he brought forward. In the year 1887, 350 people were bitten in Paris by rabid animals; of these, 306 were inoculated by Pasteur, and the mortality was only 0·97 per cent.; 44 trusted to luck, and of these 15·9 per cent. died. Evidence from other parts of the world is also strongly in favour of this treatment. For the notes of this case we are indebted to Mr. A. S. Hanson, the house surgeon.

W. R——, aged forty-seven, a gardener, was admitted at 11 A.M. on July 21st, 1889. He gave the following history. He was bitten on May 24th by a dog, which, as was proved afterwards, died from rabies; notwithstanding which the dog was allowed to bite a child between R——'s injury and the death of the animal. The wound was cauterised and soon healed. A fortnight previously to his admission the man complained of pain at the seat of injury extending up to the axilla. He became restless and depressed in spirits; he lost his appetite and complained of headaches, and was under the constant apprehension of being seized with hydrophobia. This fear was increased by the remarks of "friends" who told him he would surely go mad. Notwithstanding this, he showed no throat symptoms till Sunday, July 21st, the date of admission. The only sign of the disease was difficulty in swallowing, but it was thought that this might not improbably be due to the nervous excitement into which he had been worked by injudicious friends and by the perusal of anti-vivisection literature which had been thrust upon him. He was a well-nourished, powerfully built, sunburnt man of medium height. He had a well-healed linear cicatrix running transversely across the back of the left wrist at the level of the base of the metacarpal bones, and also a small cicatrix over the inner border of the palm. The hand was

[1] THE LANCET, vol. ii., p. 22.
[2] Proceedings of the Brit. Med. Assoc., Leeds, August, 1889.

slightly swollen and œdematous, with pain extending from the fingers to the axilla. There was some anæsthesia over the region of the branches of the radial nerve supplying the back of the hand. There was tremor of the hands; he was in an extremely nervous and excitable state, starting when touched. There was no history of alcoholic excess for the last fortnight, although he had been in the habit of drinking somewhat freely. Each time that he attempted to swallow, a spasm of the muscles of the pharynx and larynx set in. He was put to bed and ordered to be fed every four hours with a peptonised suppository, alternating with nutrient enemata of half an ounce of brandy, a new-laid egg, and extract of beef to two ounces. During the night he slept moderately well, and swallowed with effort a pint of milk; but when the nurse made his bed in the morning she noticed that laryngeal spasm occurred on the slightest motion of the bedclothes. During the day of the 22nd he seemed moderately well till 5 P.M., when he suddenly became excited and delirious, saying he would go home at once as attempts were being made to poison him with whisky. At 7.30 P.M. on the 22nd he was still very excited; he sat up in bed and grasped his throat, threw his head back, glared wildly, and threw himself on to the floor. He made a peculiar noise, between a cry and cough, the result of laryngeal spasm; he beat his chest violently and attempted to spit. There was no trismus. This attack passed off in about five minutes, and he was got back to bed and held there. Half a grain of acetate of morphia was given hypodermically and he quieted down, but did not sleep. A man was told off to guard him. At 9 P.M. he was wildly delirious, plucking at the bedclothes, suffering from both laryngeal and pharyngeal spasm, with unsuccessful attempts to expectorate a viscid saliva. The noise of pouring water from cup to cup produced a violent spasm. One grain of acetate of morphia was injected hypodermically, but although this quieted him his pupils still remained widely dilated and he did not sleep.

July 23rd.—At 4 A.M. he again became delirious, making violent attempts to expectorate. He became so violent that he nearly overpowered his male attendant. 7.15 A.M.: Delirium still continued, and he had to be strapped down in bed. One-hundredth of a grain of hyoscine was given hypodermically. During the morning he continued his violent and unsuccessful attempts to expectorate; he was sick three times, the vomit being of a dark, greenish-brown colour. At noon he suddenly became collapsed, and the delirium ceased; the respiration was stertorous, and the pupils were widely dilated. The pulse grew faint and intermittent, and the man was slightly cyanosed. At 12.50 the breathing became more shallow; twitching occurred at the corners of the mouth and alæ nasi. There was gasping for breath, the lips became blue, the tongue was swollen and protruded, and insensibility was followed by death in less than half an hour.

Necropsy, twenty-four hours after death.—The external appearances showed nothing except marked hypostasis and a healthy scar on the hand. The vessels of the brain were atheromatous, and the veins turgid. The pia mater was milky and opaque, and the veins of the pons extremely turgid. The ventricles contained an excess of blood-stained serum. The spinal cord was normal, excepting for marked turgidity of veins. The lungs revealed old spots of subpleural hæmorrhages; they were somewhat œdematous and congested. The heart weighed 14½ oz.; the valves were normal; both auricles contained fluid blood with post-mortem clots. The kidneys were smooth-surfaced. There were some small cysts. On section the distinction between cortical and pyramidal substances was well-nigh lost.

ANCOATS HOSPITAL, MANCHESTER.

EXTREME FLAT FOOT; OPERATION; RECOVERY; REMARKS.

(Under the care of Mr. A. W. HARE.)

ALMOST every surgeon of experience has met with cases of flat-foot in which it is not possible to improve the condition of the foot permanently or relieve the pain by anything short of operative measures. Yet until the introduction of the operation which goes by the name of Ogston (that of its inventor) the operative treatment was limited to the division of the peronei tendons and the application of apparatus, and afforded very little satisfaction either to surgeon or patient, especially where bony deformity was already present. We have now, however, several methods of treatment recommended for advanced deformity: 1. Ogston's[1] in which the astragalo-scaphoid joint is pegged after chiselling off the cartilaginous surfaces and restoring them to position. 2. The method which is described by Mr. Hare, the bringing together of the bone surfaces after special adaptation. 3. The removal of the scaphoid bone as carried out by Mr. Davy[2] who records cases of its successful performance. This does not restore the symmetry of the part, though it enables the patient to get about well and without pain. Mr. Golding Bird[3] has also recorded cases; in two he excised the scaphoid, and in two others also removed the head of the astragalus, in one of these he sawed subcutaneously across the tarsus and thus restored the arch. 4. Astragaloid osteotomy, performed by Professor Stokes,[4] who removed a wedge-shaped piece of bone from the enlarged head and neck of the astragalus. 5. Excision of the astragalus; this operation was performed by Weinlechner[5] of Vienna. "The foot had good shape and the patient was able to walk without pain." Billroth has also performed this operation. We have known the ankle-joint excised for severe flat-foot in one instance, but the operation is not satisfactory from any point of view. The account of the following case is from notes by Mr. W. F. Boycott, house surgeon.

T. G——, aged eighteen, recommended for treatment by Dr. Carne Ross of Manchester, was admitted into hospital on July 3rd, 1889, suffering from exaggerated flat-foot on the right side. Both feet presented also the condition of "stiff toe" (of adolescents) in a typical form. He complained of great pain in the dorsum of the right foot, and at the first metatarso-phalangeal joint in both feet. The pain, which was acute while standing, was much relieved by lying down. The history of the attack extended over a period of ten months before admission, and commenced two months after his entering upon the duties of a grocer's assistant, by which he was occupied from 7.30 A.M. till 11 P.M., and sometimes even later, with only half an hour's interval for dinner. During these hours he was standing continuously behind the counter. He kept up these hours for five months, and then worked an hour a day less for two months, when he was obliged to give up his situation. He now remained at home resting for three weeks, and then commenced work again in another situation with shorter hours; but again he was obliged to give up his work after a fortnight's trial. He always found the pain considerably relieved in the morning after rest in bed. Previously to this attack the patient had enjoyed good health; there was no pain in either foot, and he was of active habits. The patient was for about a month treated as an out-patient at the Manchester Royal Infirmary, where Barwell's "artificial muscle" was applied as a support to the foot. However, the condition became more aggravated, and on admission the patient was quite unable to walk. No other treatment had been tried.

State on admission.—The arch of the right foot entirely collapsed; the whole foot elongated on its inner border;

FIG. 1.

LEFT. RIGHT.

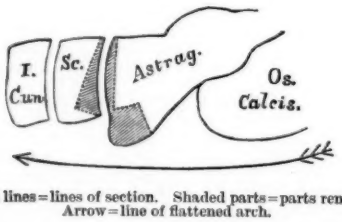
the os calcis slightly tilted up posteriorly, producing the canoe-like appearance of advanced flat-foot. The tracing of the foot-print, recorded on admission, was also typical of the condition. The rigid state of the great toes with elevation of the second toes explained the absence of any imprint of the latter in the tracing. (See Fig. 1.) The sole of the

[1] Proceedings of Med. Soc., vol. vii.; THE LANCET, vol. i., 1884, p. 152.
[2] THE LANCET, vol. i., 1889. [3] Ibid., p. 677.
[4] Ibid., vol. i., 1885, p. 789. [5] Annual Univ. Med. Soc., vol. iii., p. 30.

boot was pliable, giving no support to the arch of the foot, and, like the foot itself, the boot was canoe-shaped, the instep being pressed down and touching the ground along its inner border. The anterior part of the foot appeared bent outwards owing to the prominence of the astragalus at the inner edge of the sole. On palpation the tubercle of the scaphoid seemed less noticeable than usual, for the prominent head of the astragalus was just behind it, forming a marked projection on the inner border and sole of the foot. There was no pain on pressure over the prominence of the head of the astragalus; but there was marked tenderness over the dorsum of the scaphoid and cuboid, aggravated by movement at Chopart's joint. The first metatarso-phalangeal joint was swollen and tender, the pain increased by attempts at upward movement, the joint being immovable in that direction.

Operation.—The case appearing a suitable one for radical treatment, the patient was anæsthetised on July 4th, and

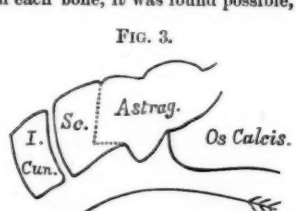
FIG. 2.



Dotted lines = lines of section. Shaded parts = parts removed. Arrow = line of flattened arch.

Mr. Hare performed the following operation. Under the spray, with full antiseptic precautions, an incision was made on the inner border of the foot, two inches in length, parallel to and immediately below the tendon of the tibialis posticus, passing directly down to the bone. This incision exposed the inner aspect of the scaphoid anteriorly and the cartilage-covered head of the astragalus lying below and behind it. It was discovered at this stage that the anterior part of the astragalus was altered in shape and elongated, so that it could not be pushed upwards into its normal relationship to the scaphoid. The periosteum and overlying ligaments and soft tissues were reflected upwards and downwards, and the two bones freely exposed. The anterior and lower part of the displaced astragalus and the posterior part of the scaphoid were removed slice by slice with Macewen's chisel in the zigzag manner shown in the accompanying sketch. (Fig. 2.) When a sufficiency had been removed from each bone, it was found possible, by pressing

FIG. 3.



Dotted line = line of junction of astragalus and scaphoid. Arrow = line of restored arch of foot.

the astragalus upwards and the scaphoid downwards with considerable force, to cause the two cut surfaces of bone to dovetail with one another, as shown in Fig. 3, and it was at once seen that the arch of the foot was restored. The bones were held firmly in their new relationship to one another, while the periosteum of the one was sewn tightly to that of the other by stout catgut, to assist in retaining the new position. A small drainage-tube was inserted and the external wound sutured with horsehair, and dressed with protective, carbolic gauze, and salicylic wool. There was considerable venous and capillary oozing following the operation. There was much pain locally during the night, and the patient was sleepless. This was relieved by half a grain of morphia administered subcutaneously.

July 5th.—Patient has had a comfortable night and slept fairly well. At 4.15 P.M., all bleeding having ceased, Dupuytren's splint was applied, after the drainage-tube and old dressing had been replaced by protective, carbolic gauze, and Gamgee tissue. The splint retained the newly formed arch *in situ*, and corrected the eversion of the anterior part of the foot. The temperature in the evening went up to 101° F., and the patient complained of pain, both symptoms being probably caused by tightness of the bandage, which was slackened.

6th.—Has had a good night.

7th.—Foot feels stiff and painful, but the temperature has come down nearly to normal. Has slept well. Leg swung in a Salter's cradle and laid on a pillow, alternately. On the tenth day healing of the superficial wound was complete, and the splint was replaced by a plaster-of-Paris case. This was reapplied on the twenty-seventh day, and kept on till the sixth week, when an ordinary roller bandage replaced it. It was now found that the parts were firmly consolidated, there being no movement at Chopart's joint. The patient was now allowed to get up each day and walk a little.

FIG. 4.

There was no pain, but considerable limping at first, the ankle-joint being stiff from want of use. A tracing of the foot-print now showed that the arch was fully restored (Fig. 4), and the foot as a whole had lost its "splay" appearance, the os calcis coming well down to the ground. The stiff toes still troubled the patient and were tender on movement, but the introduction of a piece of sheet iron into the sole of the boot, making it rigid from toe to heel, completely relieved the discomfort. On leaving the hospital on Aug. 26th the patient could walk easily and without pain; he was able to return to his usual employment, and has continued to improve since.

Remarks by Mr. HARE.—The operation performed in this case is a modification of that introduced by Professor Ogston eleven years ago, in which he pegged the astragalo-scaphoid joint with carefully purified ivory pegs. The records of his uniform success in these cases, as illustrated by him in his remarks at last year's meeting of the British Medical Association, encouraged me to adopt his method where palliative means had proved unsuccessful, and where the patient's unfortunate condition called for radical interference. It appeared to me that the method of cutting the bony surfaces zigzag, so easily performed in cancellous bony tissue, provided at least as firm a basis for osseous union as the introduction of an ivory support; while it simplified and shortened the duration of the operation. Although Professor Ogston presented last year a roll of forty-seven cases, this operation does not seem to have attracted the general attention that it certainly deserves in the treatment of those severe forms of pes planus where palliative treatment is of little or no use. Judged by its results in his own hands and in those of some surgeons who have followed him, the operation should be one of the best established of the procedures for the reduction of deformities. A feature of considerable interest in the case above recorded is the presence of hallux rigidus as a complication. I am inclined to believe that it was this concomitant condition that rendered palliative treatment of no avail in the earlier stage of this case, and it is not improbable that this frequent associate of flat-foot may account for the great trouble so often experienced in the treatment of even slight cases of the latter condition. For the "stiff toe" itself, if one does not proceed to excise the deformed joint, a procedure from which many patients would shrink, there is no doubt that the application of a rigid sole, as practised by Professor Chiene, offers the most satisfactory method of relieving the patient and rendering him fit for the ordinary avocations of life.

Medical Societies.

PATHOLOGICAL SOCIETY OF LONDON.

Hypertrophic Cirrhosis.—Addison's Disease, with Diabetes.—Cyst of Groin.—Congenital Cardiac Disease.—Occipital Meningocele, with Cleft Palate and Talipes.

THE first ordinary meeting of this Society for the winter session was held at 20, Hanover-square, on Nov. 5th. The President, Dr. W. H. Dickinson, on taking the chair, referred to the change of location since the last meeting. He stated that in their new home the accommodation at the disposal of the Society would be greatly increased, as, in addition to the room for meetings, a large room for the exhibition of microscopical specimens would also be provided. He then exhibited the fortieth volume of the Society's Transactions, which will shortly be distributed to the members.

Dr. FRED. J. SMITH read the notes of a case of Hypertrophic Cirrhosis of the Liver in a little girl aged four years and a half. There was no hereditary taint of any form. The child suffered from icterus neonatorum at birth, but this cleared up entirely in a few weeks. Some symptoms of rickets appeared at the end of the first year. At the age of three years and a half she had bronchitis and jaundice without ascites, but both conditions cleared up under treatment, though the liver was felt to be and remained enlarged. When four years old a second attack of bronchitis and jaundice appeared, from which the child never rallied, diarrhœa supervening and leading to exhaustion, which ended six months later in coma and death. A limited necropsy was all that could be obtained. The liver was found enlarged, nodular and slightly tough, and the spleen was about twice its normal size. Under the microscope the liver showed an enormous development of new connective tissue both between and penetrating the lobules. Dr. Smith remarked that he did not propose to discuss the disease in question, but thought it of sufficient rarity to warrant a full report.—Dr. DICKINSON inquired into the condition of the heart, and asked if alcohol had been administered to the child.—Dr. WILKS asked why the case was called one of hypertrophic cirrhosis. Did it differ from cases of ordinary atrophic cirrhosis, two-thirds of which were usually larger than normal? The term hypertrophic was certainly a misleading one.—Dr. WEST had seen one similar case in a child; he meant a case in which the connective tissue formation penetrated the lobules as well as surrounding them. He referred to the case of a child four years of age who was suffering from an acute illness. It was not jaundiced, but the liver rapidly got smaller. To the naked eye at the necropsy the organ looked like an instance of acute yellow atrophy, but under the microscope each lobule was seen to be penetrated by a small-celled connective tissue growth. No history of poisoning could be obtained, and the child died in seven or eight days.—Dr. F. J. SMITH, in reply, said he was unable to examine the heart at the necropsy, and he did not think that gin had been administered to the child more than once. He had regarded the affection as true hypertrophic cirrhosis described by French writers. He thought the proliferation of the bile ducts was apparent rather than real, and was due to the atrophy and disappearance of the liver cells.

Mr. D'ARCY POWER then related an unusual case of Cirrhosis of the Liver occurring in a private person who had been a total abstainer for a very long time. The liver was shrunken and weighed twenty-nine ounces, the surface was "hobnailed;" on section it creaked under the knife, and was very pale. The gall-bladder was contracted, and was bound down to the liver substance by dense adhesions. It contained one large stone and several smaller ones. Microscopically, the liver was infiltrated by a very vascular small-celled growth, which in many places had destroyed the lobules by a simple process of pressure, since the connective tissue was entirely interlobular. The liver cells were normal, and had not undergone any fatty change such as was common in cases of ordinary cirrhosis, nor did there appear to be any abnormal quantity of pigment. The liver occurred in the person of a clergyman aged sixty-three, for many years the vicar of a country parish, who for a period of thirty-seven years had been without the shadow of a doubt a total abstainer from alcoholic drink. Before he became a teetotaller he had always been temperate, and all suspicion of syphilis could be entirely excluded. He had, however, a family history of gout. His medical attendant had known him for nine years, during the last five of which he suffered from attacks of hepatic colic, lasting for periods of a week or ten days at a time. During these attacks he became jaundiced and passed gall-stones. In the autumn of 1883 and in the early part of 1884 these attacks occurred once a month for a period of eight months. In the summer of 1884 the colic subsided, but the patient experienced symptoms of angina pectoris. After the first onset of anginous symptoms the hepatic colic never reappeared. The patient was doing duty away from home when ascites first set in, and he died six weeks after the fulness of the stomach had been observed. At the necropsy the heart as well as the liver was examined. The large arteries were found to be hard and atheromatous, this condition being very marked in the coronary vessels, which contained a quantity of mortar-like material. The mitral valves were atheromatous at the edges of the cusps, but the aortic valves were hardly affected. During life no murmur was heard. The kidneys were not examined. The patient had never been a great spice or curry eater, but he was extremely fond of sugar, preserved fruits, jam, and pastry. He thought that the chronic irritation caused by the successive formation of gall-stones would be sufficient to account for the development of fibrous tissue in the liver. The condition of the liver in this case most nearly resembled that which Ziegler described as the result of biliary hepatitis, though it differed from his cases in having so small an amount of pigmentation.—Dr. NORMAN MOORE said that cirrhosis due to biliary obstruction was not uncommon, but after death a cause for it was generally found. The family history of gout had no bearing on the subject, for people with cirrhosis rarely had gout, and *vice versâ*.

Dr. WEST related a case of Diabetes Mellitus associated with Addison's Disease. The patient, a man aged forty-nine, had been suffering from diabetes for six months, and he had lost 4 st. in weight. The urine contained 2·5 per cent. of sugar, and had a specific gravity of 1034, with a trace of albumen. There was slight dulness at the bases of both lungs. The liver was large, and painful on palpation. The skin was of a greyish cyanotic hue. After admission the patient complained of scalding pain on micturition, with dysuria due to cystitis, and this caused a slight rise in temperature. The patient was dieted, and placed on a twelfth of a grain of pilocarpin night and morning, with an occasional dose of opium, which produced improvement in the diabetic condition. After a month's observation, an attack of subacute rheumatism developed, the temperature rose to 105°F., and the patient died, vomiting being a troublesome symptom. The supra-renal capsules were found at the necropsy to be imbedded in dense fibrous tissue by which they were bound to the kidney on each side and to the other parts in the neighbourhood. On microscopical examination, they showed no trace whatever of supra-renal structure; nothing but connective tissue, richly supplied with bloodvessels, remained. He regarded the association of diabetes with Addison's disease as nothing more than an accidental coincidence.

Dr. WEST also showed a second case of a Supra-renal Capsule, with a large central cavity resembling a cyst, probably due to post-mortem decomposition, taken from the body of a Spanish woman who died of phthisis. The viscera presented no abnormal external appearances, and the hollows in the arteries of the supra-renal body contained no fluid. On microscopical examination the cortical portion of the capsule was found to present quite normal appearances. It was interesting to observe that the skin of the woman was pigmented to an unusual degree.—Dr. WILKS said it was remarkable to find Addison's disease associated with diabetes or any other affection except tubercle. He inquired into the condition of the pancreas. It was common enough to find a hollow condition of the supra-renal capsule, and he regarded it as a post-mortem appearance. Dr HALE WHITE had a case of Addison's disease associated with exophthalmic goitre, and later another similar instance occurred in Cambridge. Diabetes was also associated with exophthalmic goitre, and he had shown sections of the splanchnic nerve affected with neuritis from a case of diabetes. Might not the liver branches of the splanchnic in Dr. West's

case be affected with neuritis?—Dr. DICKINSON regarded the connexion between the diabetes and the Addison's disease as probably quite accidental.—Dr. WEST, in reply, said there was no naked-eye change in the pancreas. The cases occurring in connexion with exophthalmic goitre were probably of the nature of temporary glycosuria.

Mr. BARWELL gave details of a case of Cyst of the Groin of doubtful nature. Six years ago the patient, a woman, ran quickly, and in the evening felt pain of a bearing-down character on the right side of the lower part of the abdomen, and on going to bed observed a small lump there. She complained that the tumour gave her considerable pain, not at the spot, but down the inner aspect of the thigh and up to the spine of the ileum. A little below the external femoral ring a globular or slightly ovoid tumour the size of a Tangerine orange was found; it was tense, obscurely fluctuating, without impulse on coughing, and not altered by pressure or recumbency, perfectly dull on percussion, but she said she sometimes felt gurgling in it (the patient was very neurotic). On dividing the outer layer of the superficial fascia the anterior part of the tumour was laid bare, though some of the second layer adhered to the deeper portion, yet not so intimately but that he could dissect it away without opening the cyst, which was then found to have a pedicle passing deeply, probably through one of the openings in the cribriform fascia. After ascertaining that the cyst and pedicle contained only fluid, he tied the latter deeply, divided it, and removed the tumour. It was of the size above specified, with a very thin wall, roseate when *in situ* to transmitted, pearl-grey to reflected, light. The fluid contents amounted to fourteen drachms; they were of a well-marked orange colour, and on cooling congealed to a soft jelly; they consisted largely of albumen, and contained a goodly number of normal epithelial cells. The patient did perfectly well. The interest of the case depended on the situation and nature of the cyst—whether, namely, it was an old deserted hernial sac or a cyst of new formation. In favour of the former view might be cited its history, its possession of a lobular pedicle, and the sort of fluid it contained. But then it appeared impossible to account for its very superficial position almost immediately beneath the skin. Hernia did not cause absorption, but, on the contrary, thickening of its coverings. The case appeared to him of interest, since in a long operative experience he had met with nothing exactly similar.—Mr. SHATTOCK thought the cyst might have originated in a lymphatic gland, the pedicle being a large lymph vessel leading to the upper part of the thigh.

The specimen was referred to the Morbid Growths Committee.

Dr. NORMAN MOORE showed two specimens of Heart Disease. The first occurred in a girl, aged eight, who was a patient in St. Bartholomew's Hospital, and died of abscess in the posterior half of the left lenticular nucleus, with basal meningitis. The upper part of the septum ventriculorum was absent. The pulmonary artery was very small, and opened from the right ventricle somewhat nearer the middle line than natural. Its origin was surrounded by a thickened base, and no valves were visible, unless this base was formed by thickened and adherent valves. The arch of the aorta was dilated, and so was the right auricle. The ductus arteriosus was closed, but a deep pit marked its insertion into the aorta. The left common carotid and innominate were nearer to one another than was commonly the case. The patient had been bluish and short of breath from birth; her fingers were clubbed; a loud systolic murmur was audible over the whole cardiac area, and also at the angle of the left scapula, loudest at the second left intercostal space near the sternum. The cerebral abscess was probably due to embolus from a firm ante-mortem clot contained in the right auricle, and coming very near the orifice of the aorta. The second case was a heart showing chronic fibroid degeneration of the wall of the left ventricle without valvular disease. The whole of the lower half of the left ventricle was much thinner, and in one part hardly any muscular tissue remained. The heart bulged out at this point, so that a species of aneurysm was present, which contained ante-mortem clot. The coronary arteries were highly degenerate, and one was blocked by a firmly adherent thrombus. The patient was a woman, aged fifty-eight years, who died in one of Dr. Gee's wards in St. Bartholomew's Hospital with general dropsy. This condition was sometimes due to syphilis, but in this case there were no signs of gummata in the cardiac wall or in any of the viscera. There were numerous old hæmorrhagic infarctions in the kidneys. Chronic endocarditis of this form was very rare; and during the past ten years only two similar cases had occurred in the post-mortem room at St. Bartholomew's Hospital. — Dr. DICKINSON had seen cases like the second one which were due to syphilis.—Dr. WEST said that many syphilitic cases were on record. He had seen in one case a band of fibrous tissue in the left ventricle nearly three inches wide; it quite replaced the muscular tissue in this position. — Dr. S. MACKENZIE referred to a patient who was admitted to the London Hospital with early syphilis, there being a rash present, and also the remains of a hard chancre. Symmetrical ulcers were present on the tonsils. Death occurred suddenly, and at the necropsy gummata were found in the testicle and in the heart.—Dr. MOORE, in reply, said there was no clear history of syphilis in the woman's case. She had been married, but said she had never been pregnant. Her uterus and ovaries were very small, and appeared to have been arrested in development. No trace of gummata was found.

Mr. PAGET showed a specimen of Occipital Meningocele, with cleft palate and talipes calcaneus, from an illegitimate seven-months' infant, who died a few weeks after birth. Post-mortem: The contraction of the feet was nearly gone. The meningocele opened by a narrow track into the left lateral ventricle, and was lined with a fine layer of brain tissue, not visible to the naked eye, but clearly seen under the microscope. The basal ganglia and the rest of the brain, were natural.—Dr. DICKINSON asked what was the relation of the cyst to the grey matter of the brain.—Mr. PAGET, in reply, said that the cyst led directly into the lateral ventricle; it appeared, in fact, to be an extension of the lateral ventricle backwards.

HUNTERIAN SOCIETY.

President's Address.—Forced Feeding.

THE first meeting of this Society for the winter session took place on Oct. 9th, Mr. R. Clement Lucas, B.S., F.R.C.S., President, in the chair. The PRESIDENT delivered a short address, of which the following is an abstract:—

Gentlemen,—As we are meeting together for the first time since the recess, I desire to offer a hearty welcome to the Fellows, and I trust that the present session will, in every respect, prove as successful as the last. It will be remembered that last year we were in doubt whether this ancient society would not be left for a time homeless, and now, by a curious revolution of events, we are at the present moment almost the only society in a position to hold meetings, four of the principal societies in the metropolis being now in abeyance owing to the buildings of the Royal Medico-Chirurgical Society not having been completed. This is a strong argument in favour of decentralisation, and it shows how defective was the policy which led to the concentration of societies, not only in one district, but even in one building. When the disposal of our library was a question of difficulty, the arrangement which at first seemed to meet with the greatest favour was the one that we should associate it with the library of the British Medical Association just being formed in the Strand. I opposed the scheme at the time with all the energy in my power, because I saw that to remove the only medical library from the City would be little short of a calamity to those resident in the central and eastern districts. I look forward during the present session to the possibility of gaining the assistance of the City companies in making our library more complete, and in rendering our position in the City more permanent and secure. Although the general meetings of this Society terminated in April, its Fellows should be made aware that their Council continued to hold weekly meetings at my house, and to transact a great deal of business during the summer recess. Since we last met in this room I regret to have to record that two of our most distinguished Fellows have passed away, and I personally feel this parting the more, since they were both colleagues at my own hospital. Dr. Owen Rees died full of years and of honour. He was for fifty years a member of this Society, having joined so far back as 1839, and he delivered the Hunterian Oration before the Society in 1854. In this oration there is a striking passage in which

he alludes to science as "a path to be followed with the humility of the child, the resolution of the man, and the calm dignity of the philosopher, whose tutored mind, while it admits that everything is possible, still requires satisfactory evidence in order to believe in anything." Dr. Leonard Wooldridge only joined our Society in 1888, and this year was suddenly taken from us. His life is one which shows how brilliant a reputation may be made in a narrow space of time. His student career was one continuous run of scholarships and prizes, and before this was completed he was already a voluminous contributor to physiological science. Few have done so much original work in so short a time (for Wooldridge died at the age of thirty-two), and I am pleased to repeat in this Society the remark of Sir James Paget, that "his work is quite Hunterian."

Dr. TURNER read notes of the Cases of Two Children treated successfully by "Forced Feeding," including in that term all measures adopted to procure the ingestion of a sufficient amount of food in the presence of indifference or repugnance, and in opposition to resistance, on the part of the patients. Case 1 was that of a child, aged eleven, admitted into the London Hospital with symptoms supposed to be due to meningitis, which had appeared suddenly four weeks before, and were attributed to overwork and worry at school. She was extremely emaciated and lay in a torpid state, taking no notice of anything, and passing her urine and fæces into her bed. The limbs were drawn up and rigid, and the head was strongly retracted. She resisted when the limbs were moved, but lay motionless when undisturbed. She moaned continually, but never spoke. There were no retinal changes, strabismus, or other local paralysis. The abdominal and thoracic organs appeared normal. There was moderate pyrexia, which passed off about six weeks after her admission, without any improvement in the symptoms. She took very little food, and was fed by enemata, and subsequently by the nasal tube. There was no improvement in her condition, however, until the stomach pump was used for administering food. At the same time rubbing of the limbs with cod-liver oil was ordered. From this time the improvement was continuous, though slow at first. The tube was passed from July 4th to Aug. 19th, the child becoming bright and cheerful, and recovering some power in the wasted limbs. In September she gained 7½ lb. in weight, and was able to walk alone. In the middle of October she was sent to a convalescent home, and afterwards attended as an out-patient until fully restored to health. Although in this case the symptoms at first suggested meningitis, Dr. Turner believed it to have been essentially one of nervous exhaustion—a condition of functional failure independent of structural lesion or associated with structural changes of slight degree, remediable on restoration of an efficient state of nutrition in the cerebral centres. The pyrexia he attributed to latent local pneumonia or suppuration from lodgment of food in one or more bronchioles. Case 2 was that of a girl aged eight who was admitted into the North-Eastern Hospital for Children, in much the same condition as the first, with the addition of characteristic symptoms of multiple peripheral neuritis. The symptoms had appeared after an attack of typhoid fever. The child was extremely emaciated, weighing only 2 st. 5¼ lb. She was apathetic, passing evacuations into the bed, but saying "yes" or "no" when spoken to. The limbs were rigidly contracted, and the reflexes were not producible. There was a bedsore over the sacrum. She was put upon a regulated and full diet, with massage to the limbs, according to the scheme laid down in Dr. Goodhart's manual for cases of chorea; and her progress was most satisfactory until she unfortunately caught diphtheria. From this also she made a good recovery after tracheotomy, and was discharged three months after her admission, having gained nearly a stone in weight, and having to a great extent recovered the use of her limbs. The rapid recovery of the cerebral functions under efficient feeding, and the progressive improvement of the other symptoms, indicate that in this case, as in the other, the gravity of the patient's condition, with a fatal issue apparently impending, was immediately dependent upon a condition of nervous exhaustion with chronic starvation, due to failure of all desire for food, to be met by measures directed to compensate for the functional failure by enforcing, by physical force or moral suasion, a regulated and increasingly abundant diet, aided by massage, or other means of stimulating the nutritive function and promoting absorption and assimilation. Comparing these cases with cases of anorexia hysterica, treated on the Weir-Mitchell method, and with cases of chorea treated on the same principle, the author said that he thought his cases were especially worth consideration as illustrations of the applicability of the same line of treatment to cases of different and varying clinical aspect, with nervous symptoms suggestive of, and in part due to, nervous lesions, but in which the gravity of the patient's condition is dependent upon chronic starvation due to a functional failure of the cerebral functions, to be met, as in typically neurotic patients, by forced feeding.

The President, Dr. F. J. Smith, Mr. Stevens, Dr. Davies, and Mr. Bidwell took part in the discussion which followed.

Reviews and Notices of Books.

A Text-book of Physiology. By M. FOSTER, M.A., M.D., F.R.S., Professor of Physiology in the University of Cambridge. Part II.: Comprising the Tissues of Chemical Action, with their respective Mechanisms; Nutrition. With Illustrations, pp. 846. London: Macmillan and Co. 1889.

A Text-book of Physiology. By JOHN GRAY MCKENDRICK, M.D., F.R.S., Professor of the Institutes of Medicine in the University of Glasgow. Including Histology, by Philip Stöhr, M.D., Professor of Anatomy in the University of Zurich. In two volumes. Vol. II.: Special Physiology. Pp. 803. Glasgow: James Maclehose and Sons. 1889.

THESE two important works on physiology, representing the present state of that science as taught and understood by two masters, one at Cambridge the other at Glasgow, may conveniently be considered together. Though both fall very far short of giving a complete account of physiology—such, for example, as is contained in the "Handwörterbuch der Physiologie" of Hermann—yet they give all, and perhaps more than all, that it is necessary for the student of medicine to know. Any man may consider that he has laid the foundation of a thoroughly sound professional education, and has fairly equipped himself for the clinical study of disease, who has thoroughly digested the contents of either of these volumes, and who in addition possesses a competent knowledge of anatomy. It is difficult to criticise text-books, since the facts which one accomplished teacher knows and thinks important are likely to be known and so regarded by another, and it is rather in the mode that the facts are marshaled and the language in which they are presented to the student, that the superiority of one treatise over another rests. For example, the structure of the kidneys, the composition of the urine, the circumstances modifying the quantity of urea, of water, and of salts eliminated are well known and afford but little ground for difference of opinion; any differences that exist in sections devoted to this subject in treatises by various authors must depend on the manner in which the story is told and upon the introduction or omission of particular facts. If we examine Dr. McKendrick's work on this point we find much to praise, something to criticise. The account of the structure of the kidney, and the woodcuts which illustrate it (by the pencil of Dr. Stöhr), are excellent, though we were rather surprised at finding Fig. 220 credited to Dr. Stöhr, for it may be found in every text-book, and, indeed, in the "Cyclopædia of Anatomy" published about the year 1850 (vol. iv., p. 244). The characters of the urine, the mode of determining the degree of its acidity, its composition with the apparatus required, and the description of its constituents are all carefully and accurately given. A doubt may, however, arise whether, in a good school, this would not be taught in the laboratory, and whether many of the chemical details given are not too minute, and so break up the text in a way that practically prevents the student from reading it with profit.

What student would ever read, or if he read would

remember, that two of the non-nitrogenous constituents of the urine were acids th at are thus described: "Brenzcatechin-sulphuric acid ($C_6H_4(HO)_2OSO_2$) has been found in a child's urine, and in the urine of the horse. The surface layers of the urine containing it become very dark in decomposing. It reduces cupric oxide. The ingestion of pyrogallic acid, salicin, or hydrochinon increases the amount. Traces of paroxyphenylacetic acid ($C_6H_4OHCH_2COOH$) have been found in human urine." These are facts that one might expect to meet with in a twelve-volume "Handwörterbuch der Physiologischen Chemie," or which might be an excerpt from the note-book of an unfortunate lecturer who has to give a hundred lectures on the Institutes of Medicine, but which, even if learnt, are utterly useless to the student, whilst they occupy valuable space in the book. We approve rather of Professor Foster's easy way of disposing of all such chemical details in the simple statement: "Besides urea and uric acid, the urine contains small but variable quantities of more or less nearly allied bodies, such as kreatinin, xanthin, hypoxanthin, and guanin;" and who gives only half a dozen formulæ in the whole section which relate directly to the composition and decomposition of urea and uric acid. This plan presupposes that some laboratory work has been done by the student, but at the same time enables the writer to deal with his subject in a more satisfactory because more continuous manner.

Both volumes commence with a chapter on Digestion, but this is treated differently by the two authors. Professor McKendrick takes the subject in what appears to us to be a natural order, beginning with the nature and purposes of nutritive food and the laws of dietetics; hunger; thirst; starvation; modified diets; the general structure of glands, with the processes in the mouth, deglutition, structure of the stomach and intestines, gastric digestion, the liver and its secretion, the pancreas and its secretion, the intestinal juice, and the changes of the food in the large intestine. Professor Foster, after a very short chapter devoted to Food Stuffs, discusses the subject in the following order: Saliva, gastric juice, structure of stomach, structure of salivary glands, the pancreas, the œsophagus, the act of secretion of saliva and gastric juice, and the nervous mechanisms which regulate it, the changes in a gland constituting the act of secretion, the bile, pancreatic juice and succus entericus; the secretion of pancreatic juice and of bile, the structure of the intestines, the muscular mechanism of digestion, and, lastly, the changes which the food undergoes in the alimentary canal. There is a little want of order and completeness in this. Why should the account of the structure of the stomach precede that of the salivary glands? Why should the account of saliva precede that of the structure of the salivary glands whilst the account of the structure of the pancreas precedes that of the pancreatic juice? The saliva and salivary glands, again, are considered under three separate headings: First, there is an account of the characters and properties of saliva; then, after an interval, the structure of the glands is given; and then, after another interval, the act of secretion of saliva and the nervous mechanisms which regulate it. Surely, the most convenient, intelligible, and connected mode of dealing with the saliva would have been to give the structure of the gland, then the properties of the saliva, and, finally, the nervous mechanism which leads to its secretion. Professor Foster omits all mention of the teeth and tongue, but apart from this the subject of digestion is considered at much greater length by Professor Foster than by Professor McKendrick, which is perhaps due to the fact that many researches on the organs of digestion have been conducted by Langley and others at Cambridge under the guidance or at the suggestion of Professor Foster. If we take the account of the pancreatic juice in the two authors we shall find that Professor McKendrick gives in a very orderly manner a short account of the pancreas and its ducts, with woodcuts showing the position and relation of the gland to the intestines and the characters of the glandules. The mode of forming a pancreatic fistula recommended by Claude Bernard is given, which is followed by sections describing the physical, chemical, and physiological characters of the pancreatic juice, with references to the juice of the dog, cow, and pig. The variations during digestion are given, and the account closes with a section devoted to the action of pancreatic juice on the elements of food and chyme. Professor Foster gives no account of the structure of the gland, but describes pancreatic cells in an earlier part of the work, next briefly alludes to the mode of forming a pancreatic fistula, then considers its action on food stuffs with much detail, and, after a digression on the succus entericus and upon gall-stones, returns to it to describe the mode in which it is discharged, and gives a diagram showing graphically the quantity secreted hour by hour after a meal. Considerable alterations have been made in this section in the present edition, so that it may almost be said to have been rewritten. Professor Foster has no hesitation in teaching that the acidity of the gastric juice is normally due to hydrochloric acid, and that lactic, butyric, and other acids are secondary products. The account of the digestion of the proteids is excellently given. In regard to the fats, whilst admitting that we are ignorant of the mode in which fats enter into the substance of the intestinal cells, he considers the evidence that the particles pass between the cells and not into them is distinctly erroneous.

It is exceedingly satisfactory to find there are two such excellent works at the disposal of the student, and it is invidious to attempt in any way to depreciate one at the expense of the other. It seems to us that whilst Professor McKendrick writes like one thoroughly familiar with his subject, he is anxious to blend anatomy and histology with physiology, and to state his facts distinctly but briefly. Professor Foster stands upon a rather higher level, reasons on the facts he gives, turns them about, looks at them from different sides, and endeavours to draw general conclusions. Both authors write very clearly, with the clearness that comes from perfect familiarity with their work; but the one writes for the student, whilst the other writes rather for the professor. He who runs can read Dr. McKendrick's, but Dr. Foster's book is of the kind that requires a quiet evening, and good digestion, or, if we may venture to say so, rumination. The time at the disposal of the student which he can devote to the acquirement of a knowledge of physiology is unfortunately limited; but even as it is, we should recommend every candidate for examination to read through Professor McKendrick's treatise first and Professor Foster's afterwards. From the first he will learn to follow and understand the methods and processes of physiology. From the second he will learn how to reason upon them, and obtain an exact and comprehensive view of physiology as it is at present comprehended by its best teachers. The two works are complementary to each other, and they may advantageously compare with any of the foreign treatises on the same subject, Landois and Gruenhagen being the only ones that can compete with them in excellence.

BRITISH MEDICAL TEMPERANCE ASSOCIATION.—The Council of this Association have just enrolled eight medical abstainers as members and three students as associates. Prizes of ten and five guineas are to be competed for by third-year medical students in January next by a written examination on Alcohol.

THE LANCET.

LONDON: SATURDAY, NOVEMBER 9, 1889.

THE Committee of Management of the Royal Colleges of Physicians and Surgeons of England have recommended an extension of the period of professional study to five years for candidates for qualification by the Conjoint Examining Board in England, and their recommendation has been accepted by the Council of the Royal College of Surgeons; whilst the Fellows of the Royal College of Physicians have referred the matter to the Council for further consideration. We are much surprised that so little attention has been given to the important bearings of this new departure. Five years is not any too long for a period of professional study, provided it be well spent and a proper curriculum be laid down for the guidance of parents, students, and teachers, for our "art is long," and the time required for gaining a knowledge of its principles and practice cannot be measured by periods of study of four or even five years. Every diligent practitioner is constantly adding to his skill in the prevention, treatment, and cure of disease. The longest-lived physician and surgeon should be and is still a student, and is adding to his professional knowledge by his daily experience. But the imperative requirement of a five years' curriculum for a student, instead of the four years' course now insisted on, is quite apart from this aspect of the subject. In the first place, if the demand of the leaders of the profession be decisive for a prolongation of the student's studies, it should be adopted simultaneously by every qualifying Board on the recommendation of the General Medical Council, and not be put in partial operation for students who desire these English qualifications. If adopted by the Conjoint Board for England, students in London and the provinces, who desire merely a qualification for practice, will either take the licence of the Apothecaries' Company or will qualify at other Conjoint Boards. In addition to those who distinguish themselves by obtaining the higher qualifications, a double grade of general practitioner with ordinary qualifications to practise would thus be founded on a longer or shorter curriculum. This would be open to grave objection. But the crucial questions for the English colleges are, not as to where students are taught and get their licences to practise, but whether this extension is necessary and justifiable, whether it is not prematurely put forward on a misconceived judgment as to the necessities of the case, and whether other reforms by them are not more imperatively demanded. In the first place, is everything done to secure that the aspirant to the profession shall have obtained a proper preliminary training before entering on his technical studies? It is notorious that many of the examinations which secure an admission to the register of medical students are of an absurdly low standard, and that some of them can be passed piecemeal. The Colleges of Physicians and Surgeons in England have given up all supervision of these entrance examinations to their diplomas, and would do well to begin their reforms at this end. Well-educated students can learn more of medical science and art in four years than badly educated ones in five, six, seven, or even more years; so that it is much more important to secure a proper education in general knowledge at the commence- of the medical student's curriculum than to insist on a more or less prohibitive period for his technical study before allowing him to offer himself at the final examination for the qualification which is only intended to attest, and should only attest, that he is a fit and proper person to be allowed to enter upon practice. From the report of the Statistical Committee of the General Medical Council in 1885 we learn that, although about one-third of the registered students in Great Britain do not obtain qualifications in thirteen years (probably this residuum does not obtain them at all), more than half of those who become registered medical practitioners pass within four years from their date of registration, and the date of registration is frequently—indeed, in perhaps a majority of instances—some time antecedent to their entrance at a medical school or college, when the curriculum of study laid down by the medical authorities really commences. In England more than one-third of the number registered in the decennium 1871–80 only took four years to obtain the necessary diplomas. The proposal, therefore, would have acted unjustly on nearly 40 per cent. of those who have been licensed by the English authorities to practise between 1871 and 1880, and we question if there are any recent facts before the Committee of Management or the English Corporations which would greatly affect these statistics. In the next place, may not some of the blame as to the large number of rejections be due to the examining authorities themselves? We need not here discuss the opinions of the teachers or students, for we have the published reports of the inspectors of the General Medical Council on the examinations. In many respects, the examinations of the Conjoint Board in England (as in Scotland or Ireland) have been declared unsatisfactory. The time-limit which often works unfairly and to the candidate's prejudice, and the restricted and often unusual character of the cases employed for tests of general proficiency, have been commented on so publicly, that a reform in these respects would have been a judicious one, and should have taken precedence of any attempt to extend the present curriculum. Again, should a five years' course of study be necessary, would it not be advisable for the Committee of Management to state in what respects such an alteration would be beneficial? Is the extra year to be a preparatory one before entering a medical school, as is suggested by many who are interested in the education of the medical practitioner? Is his period of study in anatomy and physiology to be prolonged? Or is he to be compelled to spend three years in attendance on hospital practice after he has passed in the more strictly scientific subjects? If the latter—and this, we assume, would be the decision of the Committee and the authorities of the Colleges—be determined on, is the student merely to spend an additional year as it is now spent, or is he to be compelled to study small-pox, infectious fevers, children's diseases, insanity, &c., in addition to the present routine? and fresh arrangements would have to be made by the Colleges for the

due prosecution of his studies in these subjects? Under what authority beyond that of his ordinary medical school is he to be placed during this extra year? These are very important questions for consideration, and we are glad to see that, by the reference of the matter to the Council of the Royal College of Physicians, further opportunity will be given for taking a much wider view of the whole question than is presented in a mere paragraph of a report, in which no reasons for such a change are adduced.

ON the conclusion of Dr. OGLE'S evidence, to which we directed attention in our last issue, Dr. THORNE THORNE, assistant medical officer to the Local Government Board, was called as the next witness, his evidence and examination extending over three sittings of the Commission. Dr. THORNE took up the history of vaccination as a preventive of small-pox from the date of the sittings of the Vaccination Committee of 1871, up to which date it had been dealt with by Sir JOHN SIMON, and he showed at some length the grounds on which our present system of vaccination had been based. Dealing first with the experience derived from the epidemic of 1870–73, he showed, from the late Dr. SEATON'S investigations of various European States, that during that epidemic a direct relation had existed between the greater and less stringency of the vaccination laws and the greater and less share of small-pox mortality under five years of age; and he also put in a table in which Mr. MARSON'S sets of statistics as to the value of vaccination, as judged of by the number of cicatrices, were summarised. These cases include 10,661 observations of small-pox patients, and they are divided into classes according as some superadded disease may or may not have caused death; but they all go to show that, apart from the ages of the patients and the quality of the cicatrices, death from small-pox steadily diminished as the number of cicatrices increased from one to four. Apart from any corrections for superadded diseases, the unvaccinated died at the rate of 36·4 per cent.; those having four cicatrices, at the rate of 1·5.

The next point was to show, for divisions of England and Wales, that, whilst there had in the two decennia ending 1870, and with increase of vaccination, been a diminution—at times an enormous one—in the amount of small-pox mortality under five years of age, there had later on been indications of some increase at ages over five, and that this increase had tended to become more marked as time advanced. This point had already been indicated by Dr. OGLE, and it went to show, as Dr. BUCHANAN has pointed out, that the almost complete and lifelong resistance to small-pox given by that disease when a vast proportion of the infantile population were attacked by it "has been exchanged by a larger number of people for the resistance furnished by the average English vaccination"; in short, that the protection now afforded—namely, that of vaccination—has a greater tendency, when contrasted with a prior attack of small-pox, to wear out as time elapses. This experience is a comparatively recent one, and it has only been acquired as primary vaccination has more and more become an affair of infancy, rather than of adult life, as in JENNER'S days.

Mr. MARSON'S statistics, which did not deal with the important question of age as regards protection against small-pox, were next supplemented by some instructive tables prepared on material compiled by Dr. GAYTON, and which show how fatality from small-pox depends upon number of vaccination scars, quality of scars, and age of patient attacked. Thus, taking 10,403 cases of small-pox, the fatality per cent. of attack was *nil* under five years of age amongst those having good vaccination; whereas it was 56·5 per cent. amongst the unvaccinated, and 39·8 per cent. amongst the nominally vaccinated. But as age advances—that is, as distance from the date of vaccination increases—the rate of mortality slowly increases until, at over forty years of age, it reaches 12·5 per cent. Much the same result was shown by reference to statistics compiled by a committee appointed by the Epidemiological Society and from other data.

Lord HERSCHELL having asked the witness how far diminution in small-pox mortality might be due to improved sanitation, this question was answered at great length by the citing of case after case of groups of persons living under the same sanitary circumstances as to locality, water-supply, drainage, and sewerage, having the same food, often the same clothing, being drawn from the same social class, and being alike in every respect but one—namely, one set was recently vaccinated, the other was not. Small-pox passed over the vaccinated without harming any, whilst it told with fatal effect on the other class. It was, however, admitted that certain sanitary circumstances, and especially overcrowding an area and within houses, by which facility for contracting infection would be increased, had doubtless some influence on small-pox, and for this reason it was compared with measles, whooping-cough, and scarlet fever, diseases which tend to be spread under like circumstances. The comparison made related to those under five years of age, and it was shown by means of a diagram appended to the report that whereas with improving vaccination the share of small-pox borne by children has during four periods included in 1840–87 gone down step by step from 64 per cent. to 24 per cent. of the total small-pox deaths, the corresponding rate of death from the other three diseases had during the whole of this period of improved sanitation either remained absolutely stationary, or had in some of the later divisions of the period actually undergone some slight increase. This led to a renewal of the cross-examination as to whether the diminution in small-pox death could not be properly compared with that of the continued fevers. As to this, it was pointed out that before Sir WILLIAM JENNER'S day the term "fever" in mortality returns was perfectly meaningless; that since a division of this term had been made the enteric fever deaths had certainly diminished, as the proper remedy—namely, improved water and sewerage—had been provided, but that this disease and the other continued fevers bore no comparison with small-pox, since the latter disease was being practically expunged from infantile death returns, whilst it was actually increasing in later years. This could not be due to sanitary control, for adult life was as much benefited by it as infantile; but it could easily be accounted for by the original protection at infancy of vaccination and its waning influence at later years. And as to deaths from "typhus," formerly so common in infants owing to faulty nomenclature, Dr. THORNE stated,

as the result of his own experience in the London Fever Hospital, that there was nothing by which it could be compared with small-pox mortality, since he never knew a child under five years of age die of that fever. He also indicated a number of sources of fallacy as to the use of "fever" statistics, notably one which was due to a sudden transference in 1881 of deaths at ages under five years of infantile remittent fever from enteric fever in the zymotic group to remittent fever in the malarial group. By this means a sudden drop of the share which infants bore of the enteric fever mortality took place from 14·3 to 9·7 per cent.

Some of the cross-examination to which Dr. THORNE was subjected, especially by Mr. PICTON, M.P., was very diffuse, dealing as it did with a number of obscure pathological questions as to the influence of zymotic contagia on the blood apart from other tissues, and even on the different forms of blood-cells, as to which it was admitted that but little or nothing was known. On one important point Mr. PICTON was very definite. He declared that as the growth in the number of official vaccinations has increased, so has the number of deaths from small-pox increased, and he said he made "no concealment of it." There is, however, nothing to conceal, provided Mr. PICTON will put his facts in their proper order, and say that as small-pox in a town increases, so people in increasing numbers rush to the vaccination stations, and hence the number of official vaccinations necessarily goes up. This obvious interpretation seems to have been overlooked.

The next witness was Dr. RAUCH, secretary and executive officer of the Illinois State Board of Health, and, apparently owing to the fact that his stay in England was limited, his examination was not confined to the first subject as to which the Commission are at present taking evidence. His story was extremely interesting as dismissing the notion that in the United States, where there is no general Act as to vaccination such as we have, people are at liberty to do as they like in the matter. In the army Dr. RAUCH'S orders as regards the vaccination of men in regiments under his supervision were carried into effect on a mere rumour that small-pox existed in some neighbouring brigades. Again, during the Chicago fire, when 4000 people were housed in a barrack, the importation of one case of small-pox led to an order that every person should be vaccinated, and all obeyed except "an Englishman," who threatened anyone who should vaccinate his children. Nevertheless they were subjected to the operation, and it may be recorded that, a few weeks afterwards, the man, finding his children were saved from small-pox, made an apology for his behaviour. Indirect pressure is also used in a way we are unaccustomed to. The people were homeless and needed to be provided with rations, and a certificate of vaccination was made a condition of receiving food—an arrangement under which some 120,000 were vaccinated or revaccinated. So also, in November, 1881, small-pox was on the increase, and an order was issued for the vaccination of all pupils admitted to public schools in each of the 12,000 school districts of the State, and in the end 650,000 children were vaccinated in the public and parochial schools. Vaccination is permissive, but school attendance is compulsory, and all attending school are compelled to be vaccinated. And if small-pox is found in a house the building is "quarantined, placarded up, and everybody vaccinated and revaccinated." Here, in the case of others than school children, the compulsion is indirect. Those submitting to vaccination are allowed out of their houses, and have certain privileges; those refusing are compelled to remain indoors under a police requirement. Much the same style of compulsion applies to persons entering the State of Illinois, the unvaccinated being subjected to the operation either before starting from their journey from the port, or in the railway cars during transit. If they refuse—and a case of three Englishmen was cited as to this—they are not allowed to enter the State. In the end, they preferred Illinois and vaccination to being sent back to the place whence they came. Apart, therefore, from compulsion as to school children, the compulsion as to vaccination in Illinois is actually on a very wide scale, and it mainly comes into operation at times when small-pox is imminent or actually prevalent. But this is not always so in the United States. Thus, according to Dr. RAUCH, there is a definite compulsory vaccination law in Massachusetts.

Two important pieces of evidence were elicited from Dr. RAUCH. One was that, though he had personally vaccinated, and had under immediate supervision, about 250,000 people, he had never seen a case of syphilis as the result of vaccination. He admitted that he recollected that a statement had been made by Dr. JOSEPH JONES as to 227 cases of "ulceration resembling the Hunterian chancre" in the 44th Georgia regiment; but he certainly never knew anything of the sort in the practice as carried out in the Federal army. And, as to other untoward events, he had met with nothing more serious than ulcers in any cases he had vaccinated, and this although, as regards half the population who were voluntarily vaccinated, the operation would be performed as early as within twelve months of birth. Dr. RAUCH'S evidence has great value, but we much doubt whether, in this country, there will be any desire to accede to an alteration of the vaccination law which would assimilate our system to that of a permissive nature, supplemented by indirect compulsion such as is adopted with success in the State of Illinois.

We have thus given a summary of the evidence so far brought under the notice of the Commission. It must, however, be regarded as constituting merely an outline; and all who are interested in the subject, whether from a medical or administrative point of view, should read each portion of the evidence as it is periodically issued. Together with the appendices, the report will evidently embody all available information on the subject.

WE insert to-day another letter from Dr. RENTOUL. His letters to ourselves and his various communications to our contemporaries show him to be deeply in earnest in studying the present system, or rather want of system, on which the wage-earning classes are attended, and in devising remedies for what are undoubtedly great evils both to the people themselves and to the medical profession. His letter to-day describes the enormous scale on which free medical relief is based, and the forces by which it is sustained. We are not concerned to defend the absolute accuracy of his calculation that one in three of our population is actually provided

with free medical relief. He disputes, what we have often maintained, that the enormous totals of out-patient and dispensary practice involve large errors, especially in counting many times over the same patient, who goes, perhaps with a phthisis, or a gout, or a winter bronchitis—that does not always confine itself to winter—or a menorrhagia, from one hospital to another, or one dispensary to another, after having had several letters for the same institution, each letter counting in the grand total as a new patient. Very likely some hundreds of thousands may have to be subtracted from the total of wage-earners receiving hospital and dispensary relief either gratuitously or for a mere pittance that is almost more demoralising than no charge at all. But after making all deductions of this sort, the total is a figure which is appalling, and only becomes more appalling when it is analysed, and when the individual cases of abuse are traced. The first thing to be done by reformers is to bring this fact home to the public. By all means let all deductions be made. But let us have some approach to accuracy. Dr. RENTOUL praises the system by which hospital abuse is detected and exposed at Manchester. Here, therefore, we might expect some approach to agreement as to facts. But even in regard to the Manchester case we have the most diverse statements. Sir ANDREW CLARK, in his admirable defence of hospitals at the Mansion House in May, said—quoting from our own columns—that after all the elaborate efforts to find out and expose abuses at the Manchester hospitals, the only result was to show that there was not more than 8 per cent. of such cases of abuse. But Dr. RENTOUL calculates that the abuse rate of hospitals is 50 per cent. Now this is a difference that throws discredit on the whole argument. Suppose a Royal Commission were granted by the Government—and it is actually under consideration,—the production of such discrepant statements would at the outset produce a damaging effect. This is a question that should be referred to accountants and experts. We agree with Dr. RENTOUL that the abuse is very great, and ought to be diminished. And we feel sure that hospitals are suffering damage in public estimation by inviting and encouraging all comers, by pushing the out-patient department and by the necessity of sometimes, owing to want of accommodation, having to send urgent and pitiful cases away that need admission as in-patients. The abuse is not to be estimated statistically only or chiefly, but by a thorough knowledge and investigation of individual cases. But for public purposes we need data more accurate and precise than have yet been produced. In his demand for the co-operation of the medical charities Dr. RENTOUL is most reasonable. Still he is not altogether original, for the Metropolitan Provident Dispensaries Association have made a similar demand, and with, so far, little success. It is amazing to see how little notice the hospitals take of the complaint that they are demoralising the poor, and encouraging a casual, thriftless style of medical attendance, which must be infinitely inferior in its benefit to the wage-earning classes to that of a friendly private practitioner who would come to know their families and their homes. This is the form of medica attendance which we rely upon to benefit the wage-earning classes, to instruct them in lessons of personal and domestic hygiene, and to visit them when necessary in their homes. Dr. RENTOUL writes as if the medical staffs were chiefly to blame for the deaf ear that the medical charities turn to all appeals to reform their out-patient department. It is not they, however, with whom the ultimate responsibility rests, but the administrative bodies of the hospitals; and the strongest argument for a Royal Commission is to be found in the fact that no other representations to hospital authorities have produced any material impression, or led to any sensible curtailment of the out-patient department.

The other parts of Dr. RENTOUL'S scheme and views are more open to discussion than his contention that the competition of hospitals and dispensaries is hindering the growth of providence in the working and wage-earning classes. They consist mainly of a proposal for the creation of what he calls a "Public Medical Service" for the benefit of wage-earners making under 45*s.* a week from all sources. We gathered from Dr. RENTOUL'S early communications to ourselves that he made no provision for home treatment of the classes which he wishes to cater for, and to withdraw from the absorbing vortex of the out-patient room. We thought, and still think, this a fatal defect, though we gladly accept his later statement that his scheme *does* provide for the visiting of patients at their own homes. The scheme consists essentially in forming branches in different districts in a town. These have to be served by branch staffs, which, we presume, are to include all willing practitioners who do not keep open dispensaries or unqualified assistants, and who accept the somewhat elaborate tariff which Dr. RENTOUL has sent us, and which includes everything, from Cæsarean section (£2 10*s.*) to the extraction of a tooth (1*s.*). We gather that Dr. RENTOUL'S scheme grows as he thinks upon it. He contemplates immediate payments, but he has latterly developed a provident scheme which differs from the ordinary provident dispensary schemes in the higher payments by patients, and the fees for extra services according to the tariff. It even contemplates outside assistance from charitable or honorary members. He makes a special point of having medicines dispensed by chemists, who are to be paid according to rates on the tariff. He errs, we think, in over-elaborating his tariff, in cutting off the man earning 45*s.* a week from all claim to hospital assistance. He would be more likely to conciliate such a workman by giving him to understand that in extreme cases connexion with a public medical service would not disentitle him to the use of the hospital—rather that his usual providence in medical matters would secure prompt consideration of his case in any emergency on the part of hospitals. Is he not too sweeping also in saying that all people with 25*s.* a week, and under, are entitled to absolutely free medical attendance? Finally, we fail to see how such a Public Medical Service is to be enforced, and how medical men are likely to be persuaded to join a scheme which involves in every district joint liability for rent and other expenses of a separate establishment, while still having their own professional residences to keep up. What we want first is to compel hospitals to refuse medical and surgical advice to persons capable of

paying for it. If this can be secured, medical men should not hamper themselves with costly and complicated organisations. Dr. RENTOUL has given a great deal of attention to a very difficult subject, but we are not yet persuaded that his schemes and tariffs are practicable.

IN our last number we briefly referred to the issue of the recent trial at the Central Criminal Court. We now purpose to give more in detail the facts of the case and comment upon their forensic application. From the evidence it appeared that the deceased woman, who was the mother of two children, had expressed a wish to be relieved of her pregnancy. Her husband deposed that he endeavoured to dissuade her from a course which he deemed both wrong and dangerous. Somewhere in June last she visited Dr. MOON at his surgery, and shortly afterwards repaired to the country for a month's holiday. On July 9th she again went to Dr. MOON'S house, and the fact was not disputed that on that occasion accused passed a sound into the uterus, and introduced a sponge or laminated tent into the cervix, and that he adjusted a plug of cotton wool impregnated with laudanum. At the coroner's inquest, held by Mr. E. A. CARTTAR, Dr. MOON made a communication, and supplemented this by others before the inquiry closed. He related (1) that the woman called on him in June, complaining of frequent and serious uterine hæmorrhage; (2) that he deferred an examination, on the grounds that she was then not quite free from an attack of metrorrhagia; (3) that on July 9th he sought for the evidence of a tumour by digital examination, and finding none he passed the uterine sound, and using this as a guide fixed a tent for the purpose of dilating the cervix, with a view to subsequent more complete exploration; (4) that on withdrawing the sound, and seeing it free from blood, he for the first time formed an opinion that the patient was pregnant, and expressed himself to that effect, whereupon he received the reply, "I know I am"; (5) that he placed the plug of wool charged with laudanum against the os uteri to diminish the effects of any irritation that might have been caused by the instrumentation. Counsel for the prosecution contended that the whole procedure was conducted by the accused with the intention of procuring abortion; and that, if he had acted inadvertently, he was guilty of culpable and criminal negligence in allowing the woman to go home with a tent in the cervix. The latter allegation was met by the reply that Dr. MOON, on finding the true condition of affairs, wished to remove the tent, but that deceased declined to allow him. The prosecution also alleged that, knowing the peril the woman was in, he ought to have taken steps to minimise the danger by his subsequent action. Here we may remark that the husband of deceased swore that as the miscarriage did not "come off' at the expected time, he went to Dr. MOON and acquainted him with the fact. He also swore that a day or two later he paid another visit to Dr. MOON, and reported that the "child" had come away, but the afterbirth had not; and that he was told "only a little more action was required,' and to obtain this his wife was to take some castor oil. On the ninth day subsequently to the instrumentation the woman became worse, and Mr. TOWNSEND, a local practitioner, was called in. Her case was now hopeless, and she sank from acute peritonitis, which was verified by a post-mortem examination made at the instance of the coroner. After the death of the woman, her husband alleged that he went to Dr. MOON and said that Dr. TOWNSEND declined to give a certificate of death, and asked what he should do, and received a reply that he should not mention the fact that he (Dr. MOON) had had anything to do with the case, inasmuch as if it was known "it would mean transportation for both of us." Before leaving this part of the inquiry, we may mention that Mr. Justice STEPHEN, in his charge to the jury, said that he always held that too much stress should not be laid upon reports of conversations, since after a considerable interval facts were often forgotten, and a wrong construction might be placed on what was reported. On this point, when referring to the alleged remark by Dr. MOON about "transportation," the learned judge said that this might have been made by a perfectly innocent person in the course of a conversation upon such a matter and at such a time. Adverting to the charge made by the prosecution that Dr. MOON, in his statement before the coroner, did not in the first instance mention the tent and plug, but only the sound—and that in fact he only gave a complete and full explanation as step by step the evidence strengthened against him,—the counsel for the defence very properly contended that at the inquest Dr. MOON had no legal assistance, and was further placed at a manifest disadvantage in not being summoned as a witness when, if he had been aided by questions, the whole statement might have been elicited at once. The Judge, whilst admitting that the coroner had conducted his inquiry in a proper manner, endorsed the argument of Dr. MOON'S counsel.

Although a strong contingent of leading metropolitan obstetricians was in court, presumably ready to give evidence in favour of the accused, no witnesses were called for the defence. Mr. LOCKWOOD, premising his remarks with the observation that he was prepared to accept the testimony of the medical witnesses for the prosecution, which had been given with great fairness, a number of witnesses—including Dr. BRAXTON HICKS—as to Dr. MOON'S character and reputation were called at the close of counsel's addresses. Mr. Justice STEPHEN, having quoted the saying that "evidence of good character could not alter facts," very forcibly remarked in his charge that, although that was so, it should lead the jury to consider most carefully the interpretation to be placed upon those facts.

As we reported in our last issue, a verdict of acquittal on all the charges preferred was returned. We congratulate Dr. MOON upon the result after so full and complete an investigation. It must have been a source of great satisfaction to him to hear from the Judge that he entirely agreed with the verdict of the jury.

There are one or two lessons to be learned from the above case. In the first place, we have another instance of the advisability of not examining a woman in the absence of a third person; for, apart from the fact that charges may be made which from the very nature of the circumstances must be difficult to refute, it is well known that it is too common for women, with shameless effrontery, to request medical men to procure abortion upon them; whilst at

other times—as in the present case—they will conceal the knowledge of their pregnant condition in order to obtain an instrumental examination in the hope that such procedure may accomplish what they desire. Mr. MATTHEWS, the prosecuting counsel in the above trial, remarked: "Mrs. TEBBUTT, after the sound had been passed, admitted with brutal frankness that she was pregnant."

For the benefit and protection of the profession in general, we feel bound to say that we think Dr. MOON would have exercised greater discretion if, after finding that he had been led by "deceit" into making a dangerous—and, as the event proved, a fatal—examination, he had disclosed the facts to someone in authority or position.

A LETTER from Dr. EDRIDGE-GREEN on the detection of colour-blindness which recently appeared in these columns appears to have attracted the attention of the Associated Society of Locomotive Engine-drivers and Firemen, and the subject was discussed in an address delivered by Mr. CLEMENT E. STRETTON on the 28th ult. Both Dr. EDRIDGE-GREEN and Mr. CLEMENT STRETTON agree in considering that the possession of a correct sense of colour is of very great importance in railway officials; yet that there are decided imperfections in the tests used by the different railway companies. Mr. STRETTON, indeed, remarks that, owing to the absence of a uniform standard test, a man may be removed from his position under one company for some defect or supposed defect which another company would regard as of no importance. He considers that the tests in most general use, and known as the dots and wool tests, are unfortunately theoretical and not practical; and he proceeds to say it is supposed that to clearly see and count the dots at a distance of fifteen feet with each eye separately is equal to a soldier being able to see a target six feet square at 1000 yards. Not being a rifleman, he could not express any opinion on the test from a soldier's point of view, but as a railway test he stated most distinctly that it was "useless and absurd." We are disposed to join issue with Mr. STRETTON on this point. We think it is highly important that an engine-driver should be able to see a target six feet square, or an object of equal size,—say the front of an approaching engine—at 1000 yards. At that distance, with a train running at ordinary express speed, he would only have about fifteen seconds to shut off steam and put on the brakes were he to meet a train coming in the opposite direction at the same speed, and not much more than half a minute if the object were stationary. And whilst we, of course, admit the occurrence of cases to which he alludes of men who can count the dots at fifteen feet who cannot see a signal at 800 yards, we are somewhat sceptical in regard to those who fail at fifteen feet but can see a railway signal at a distance of a mile. Such cases must be very rare. With regard to HOLMGREN'S wool test the case is different; and we agree with Dr. EDRIDGE-GREEN and Mr. STRETTON that as a test for the colour vision of railway officials it is open to objections. It has to be proved, as Dr. EDRIDGE-GREEN stated, that a man who puts a confusion colour with a green wool cannot distinguish between a red and a green light; and there is reason in Mr. STRETTON'S contention, that instead of the wool test it would be far more practical to take a man upon the railway and try him with actual signals both by day and night, when it rains and when it is fine, and require him to see every signal perfectly, from the starting signal a few feet off to the most distant signal which it is necessary for him to see. With this Dr. EDRIDGE-GREEN fully agrees. He would, he says, put the person to be tested in as nearly as possible the same conditions as he would be likely to occupy when following his employment. The only practical difficulty that occurs to us as likely to interfere with Mr. STRETTON'S plan of testing is the time that might be required to complete the examination. We cannot command the weather, and many weeks might be spent in waiting for a spell of dry and bright or of rainy and dull weather. The difficulty might be overcome in the manner suggested and employed by Dr. EDRIDGE-GREEN—namely, of using special kinds of neutral glass of different degrees of thickness, together with the coloured glasses, since such neutral glasses obstruct the light in the same way that the atmosphere or fog does, and therefore puts the examinee under similar circumstances to those in which he would be likely to be placed. Both Dr. EDRIDGE-GREEN and Mr. STRETTON are agreed finally that the testing should be conducted by one who is specially trained in colour-blindness. Since colour testing requires training and skill, Dr. EDRIDGE-GREEN recommends that a committee should be appointed to report on the subject, and to examine and appoint properly trained examiners; whilst the Society of Locomotive Engine-drivers has decided, in every case where a member is discharged or reduced on account of the dots and wool tests, to have such member carefully examined by an expert; and if the latter report that the member's eyesight is not defective, the attention of the directors of the railway company should be called to the case, and a request made that the man be put through a practical test with signals in the presence of the company's surgeon and an expert surgeon, to be named and employed by the Association,—a proceeding, we venture to think, exceedingly practical and fair.

Annotations.

"Ne quid nimis."

"THE GAPS IN MEDICAL EDUCATION."

DR. GLOVER has published as a short pamphlet the speech which he made at the May meeting of the General Medical Council on the shortcomings of the various examining bodies, as disclosed by the reports of the inspectors. The examples given by the Inspector of Medicine, Dr. Finlay, as showing a grave deficiency in the knowledge of how to prescribe and use common drugs, are certainly most striking; but perhaps the constant and daily use of stock medicines and of ready-made pills with a definite and unalterable formula may partly account for this. Prescribing and dispensing have altered greatly in the past few years, mainly in the direction of time-saving appliances and of drugs made up according to constant formulæ. Yet therapeusis as an art is generally somewhat neglected in the schools, and insufficiently tested at examinations. Dr. Glover's criticism on the selection of cases at our medical examinations is only too well founded, and the faults of commission in examining the candidates on scarcely anything but chronic incurable hospital cases, and of omission by never practically testing them on infectious diseases, in-

fantile diseases, and some kinds of *ordinary* cases even, such as pleurisy, rheumatic fever, acute gout, acute dyspepsia, insanity, puerperal cases, &c., are certainly very grave, and would to a large extent be remedied if the authorities could only be induced to see how incomplete and unfair to the student and to the public such examinations are. We shall look forward with some curiosity for the summary of reports of the inspectors, and the remarks of the bodies inspected, which the Examination Committee is preparing for the members of the General Medical Council at their coming meeting, especially as this committee is to add any comments and resolutions which may seem fitting and desirable. Whatever opinion may be held as to the practicability of Dr. Glover's suggestions, no one will withhold from him the credit he certainly deserves for directing the attention of the General Medical Council and the profession to this very important subject.

CAMBRIDGE UNIVERSITY AND THE GENERAL MEDICAL COUNCIL.

WE hear with regret that Prof. Humphry's term of office has expired, and that he does not seek re-election. Professor Humphry has been the representative of the University of Cambridge in the Council since 1869. He has not only well discharged his duty to his own University, but he has been conspicuously useful and painstaking in every part of the Council's work. For many years he has been a member of the Executive Committee. On the Financial Committee also he has taken an active part, always with an inclination to proper economy. There are few members whose counsel will be more missed either in questions of administration or in the great matters of medical education. There has been a very sharp contest in the University over the election of a successor to Prof. Humphry. The election rests with the Senate. Two gentlemen were nominated—viz., Dr. Latham (the Downing Professor of Medicine), and Dr. Donald Macalister. The latter candidate was supported by Sir George Paget, Prof. Humphry, Dr. Hill (Master of Downing), Drs. Michael Foster, Liveing, Roy, and Gaskell. Dr. Latham was supported by most of the Masters of Colleges and by many London physicians, Sir Henry Pitman, Drs. Hare, Martin, Reginald Thompson, Edward Liveing, Ralfe, Lees, Ewart, Habershon, Messrs. Page, Critchett, and others. The election took place on Thursday, between 2.30 and 3.30 P.M., and resulted in the choice of Dr. Donald Macalister, who received 194 votes, against 140 recorded for Dr. Latham.

TUBERCULOSIS IN MEAT.

THE importance of meat tuberculosis is attracting the attention of sanitary authorities, and is no doubt a very serious problem for butchers and graziers. The decision in the Glasgow case, which is now celebrated, and the recent actions at Sheffield, prove that, so far as the health of her Majesty's subjects is concerned, there is a strong opinion of the infectivity of meat from an animal which has suffered from tuberculosis. Last week the sanitary inspector of Wigan seized part of a carcase of a cow which was dressed for food, and took Mr. Barnish, medical officer of health, to see it. He examined the meat, and from the appearance of the texture could not say that it was unfit for the food of man; but seeing the lungs, pleura, and intestines, in which tubercles were present, he had the meat taken before a magistrate and condemned. The butcher was summoned before the magistrates (Mr. Roocroft and Mr. Pendlebury), who, after hearing the evidence of Mr. Barnish and his inspectors, fined the man 20*s.* and costs. At the same time, they considered that the defendant was not aware that the meat was unfit for food. The proceedings were taken under the 116th Section of the Public Health Act, and for the defence Mr. Macloghlin was called and two butchers, all of whom considered the meat fit for consumption. This is the first case of the kind in Wigan, and to the butchers of the town is one of serious importance, because undoubtedly a large number of beasts, especially those stall fed, are subject to tubercles, and hitherto it has been considered, if the meat was unaffected—i.e., no general tuberculosis—it could be sold for food without any danger to man. Mr. Barnish, in his evidence, alluded to the prevalence of tuberculosis in the town, and thought that consumption of this class of food was a cause of it, whereas Mr. Macloghlin thought the reverse, and the following extract of a letter from a very eminent professor of pathology of the University College, Liverpool, was read: "It has not yet been proved that the flesh of tuberculous animals is tuberculous of necessity. There is no legal decision on the subject in England so far as I know." Now this subject is of so much importance that it should be settled positively whether or not the flesh of an animal which has only tubercle in the lungs and no general infection or glandular infection should be destroyed or not. It is too important a subject to depend on scientific opinions only. In the Glasgow case, for example, men of equal scientific attainments and experience gave entirely opposite opinions, so that a poor butcher or grazier might have a cow or the meat of an animal passed by the meat inspector of Birmingham or Leeds, whilst if he had the same beast dressed in Glasgow or Edinburgh it would be seized and destroyed. No doubt the subject is one of vital importance to her Majesty's subjects from a health point of view, but even from an economic point it is of very great moment.

THE DANGERS OF ELECTRIC LIGHTING.

THE serious and even appalling risks to life and limb involved in an ill-designed and badly executed system of electric lighting are constantly receiving illustration from the unfortunate experience of some locality favoured with the possession of the new illuminant. It is often a feature of the reports which arrive from America and elsewhere that they are obviously and even grotesquely exaggerated and incorrect. But there cannot be a doubt that a broken-down wire along which a current of perhaps 1000 or 2000 volts is flowing presents a most formidable source of danger. The very circumstantial story which came only a day or two since from New York, of the result to an unfortunate horse and its driver of meeting with such a fallen wire upon the roadway, strikingly illustrates this point. It is certain that such an obstacle might easily spread death around it in the way described if approached without due and even elaborate precautions. There is, therefore, abundant ground for the alarm which is not unnaturally felt by the public generally as to what may be the possible consequences of threading electric lighting mains through our streets and in and out of our houses in the manner to which the enterprise of the electric lighting companies has recently given rise. Nor will this alarm be at all lessened by the fact that, according to what appear to be trustworthy statistics compiled in New York, not fewer than eighty-seven persons have been killed in that city since the beginning of the present year. These unfavourable considerations should, however, be taken into account with others, which deprive them almost, if not wholly, of their point. The perils of electric wires arise from well-known causes, and are capable of being provided against by comparatively simple expedients. The efficient insulation of the conducting wire is from some points of view a matter of considerable difficulty; but no difficulty—nothing but labour—is involved in the expedient of placing it out of reach. This is a con-

dition which the Board of Trade has relentlessly imposed upon the high-pressure systems in the recently granted provisional orders; and, assuming that it is effectively carried out, we see no reason whatever to apprehend any danger to life from the works which are now going forward in our midst. It would no doubt be a very serious matter if the current at dangerously high tension, were actually brought into houses and exposed to the accidents which accompany domestic use. But that is not the case in any single instance. The companies which use high tension currents for the purpose of distribution reduce these currents to perfectly innocuous voltage (50 or 100 volts) for consumption, and although it might not be wholly agreeable to a sensitive subject to receive a current of even this pressure, there is no reason whatever to suppose that any quantity of such electricity passed through the human body would have a decidedly injurious effect. We await, then, the experience of London in the matter of the electric light with perfect equanimity, being sangnine that the very carefully devised protective measures which the Legislature has approved and enjoined upon the companies will prove sufficient for their purpose.

HYPOCHONDRIASIS.

PROFESSOR MENDEL, in a lecture before the Association of Physicians at Berlin, defines hypochondria as a functional disease of the brain, the essential symptoms of which are fear and anxiety about the patient's own state of health. The disease appears, according to Professor Mendel, in three different forms. The simplest of these forms, for which the lecturer proposes the name of nosophobia, is when the patient considers himself seriously ill or near death. The second form shows not only the same fear and anxiety, but also various organic hallucinations. The internal organs have probably, like the extremities, a centre in the cortex, and any irritation of this centre will usually produce a special class of sensations, which in this case become hallucinations. The third form shows, in addition to all the foregoing symptoms, hallucinations of the higher senses. Patients believe their hearing and sight are getting worse. They also sometimes hear voices, as it were within the head. The affection is, according to the course it takes, divided into acute, subacute, and chronic or constitutional hypochondria. Contrary to the general belief, it is very frequent amongst females of every age. Nosophobia is certainly much more frequent in man, probably because women act as nurses, and consequently have no fear of infection. The second form is very frequent amongst women, and is generally connected with the sexual organs. These patients generally come under the care of the neurologist only after having become much worse through unsuccessful gynæcological treatment. The so-called cerebral form is most frequent. Patients say that their head feels as if it were in a vice, or that it is soft, empty, or too light, and that the spinal column cannot support it. They are consequently in fear of apoplexy or insanity. The third form appears chiefly amongst women. Patients fancy themselves altered; when standing before a looking-glass they believe their faces to be wrinkled &c. They fear that their means will become insufficient to live upon, that they will lose their place, and they suffer from claustrophobia. Hypochondriacs are characteristically egotistic. This symptom is more prominent in women than in men. One woman kept her bed for twenty-five years without any disease, and committed suicide in bed. Generally, however, suicide is rarer in hypochondriacal women than in men. Sleep is generally good. Paræsthesia and hyperæsthesia are frequent, as are also cold feet, while the head is warm. Professor Mendel has frequently discovered a spot on the head of such patients which felt hotter to the hand than the rest of the head. In complications of hypochondriasis with other affections (hypochondria cum materiâ), Dr. Mendel teaches that the latter are the cause of the neurosis. Especially important is the complication with hysteria, which is generally the primary affection.

THE RECENT GREEK CENSUS.

THE *Official Gazette*, published in Athens on the 16th ult., contained a preliminary statement of the population of the kingdom of Greece enumerated at the recent census in February last. It appears that the population amounted to 2,187,208 persons, showing an increase of 218,925; or rather more than 11 per cent. upon the number enumerated at the previous census in 1879. The increase of the population of England and Wales between the censuses in 1871 and 1881 did not much exceed 14 per cent.; so the recorded increase during the past ten years in Greece may be accepted as evidence of prosperity and progress, as well as of a satisfactory excess of births over deaths. The largest proportional increase of population was shown in Attica and Beotia, Aetolia and Acarnania, Achaia, and Elide, and Triccala. On the other hand, an actual decline of population occurred in Arcadia, Cyclades, Cephalonia, and Zante. In one respect the Greek population stands out in strong contrast to that of almost every other European country, inasmuch as the number of males exceeds that of females. At the recent Greek census the proportion of males was 107·6 to 100 of females. It is well known that the females considerably exceed the males in almost every other European country. At the last English census in 1881 the sex proportion was 105·5 females to 100 males. This excess of males in the Greek population is not susceptible of satisfactory explanation without more complete vital statistics than are issued by this country. There is little reason to doubt that males are more numerous than females at birth, and the proportion of emigrants and of colonists who leave the shores of Greece is probably comparatively small, which tends to prevent the excess of females thus caused in most other European countries. It would, however, be very interesting to know whether the excess of males in Greece is in any degree due to exceptional sex-mortality. Excess of mortality among males, compared with that of females, is almost invariable. If the mortality of females in Greece exceeds or is equal to that of males, such an unusual fact would help to explain the excess of males in the population.

SAVING LIFE AT SEA.

MR. F. W. BREWSTER, M.A., has published in pamphlet form a short explanatory commentary upon the Merchant Shipping Act of 1888. The subject is by no means a new one to the writer, and it is not without reason that he takes credit for having indicated long since the general lines which the Legislature has at length followed in dealing with this important subject. In some particulars, indeed, he finds room for criticism, and on these occasions he does not shrink from the forcible expression of an adverse opinion. There can, however, be no doubt that the enforcement of the new rules will have a most salutary effect in improving the security of seagoing ships, and even, we understand, of river boats also. It is, indeed, strange that such measures as have at length been adopted should not have been perceived long since to be of the greatest importance for the safety of passengers and crew, and made obligatory upon shipowners years ago. But even if late, the innovation is a useful one; and although it would perhaps be premature to assume at the present time that regulations which will not come into operation until

April of next year will be found in practice perfectly satisfactory, there can, we think, be no undue boldness in expressing satisfaction at the good beginning which has been made. Experience may eventually suggest a great many modifications in the scheme which has now been adopted, but these we may be sure will be matters of detail. The main principles that every ship must carry sufficient life-saving apparatus for the rescue of every person on board, and that all necessary precautions must be taken for securing the efficiency of the apparatus provided for this purpose, have now been asserted once for all. We do not doubt that the effort of volunteers like Mr. Brewster will still be of inestimable value in helping to perfect the details of the scheme in which these leading principles are to be embodied; but for the present we may be content to congratulate them and the public at large upon the very considerable measure of success which has already crowned their painstaking efforts in the past to secure adequate recognition for the principle that a traveller's life at sea is as precious as on land.

THE EFFECT OF DISTENSION OF THE ABDOMEN ON CIRCULATION AND RESPIRATION.

THE effects of pregnancy, ovarian dropsy, ascites, and other diseases leading to great distension of the abdomen, in impeding respiration and disturbing the action of the heart, though there is little unanimity or precision in the opinions that are entertained respecting them, are generally admitted. Such affections are, indeed, of a chronic nature; the abdominal walls have time to yield, and the organs both in the abdomen and in the chest are enabled to accommodate themselves to the altered conditions; but we are not aware that any experiments have been undertaken to determine the effects of sudden distension of the abdomen in animals until the appearance of a paper by Dr. G. Heinricius of Helsingfors, in a recently published number of the *Zeitschrift für Biologie*. It is generally believed that in pregnancy there is marked increase in the tension of the systemic vessels, and that as a consequence the heart undergoes hypertrophy; but although such statements are to be found in almost every gynæcological text-book, the evidence on which they rest is extremely slender. In order to determine whether any obstruction to the circulation which may exist in the uterine vessels in pregnancy would raise the general blood pressure, Dr. Heinricius first performed the very simple experiment of tying the aorta just above its division into the iliacs, and found that in four rabbits no change took place in the arterial tension of the carotids. Hence no effect was to be expected from ligature of the uterine arteries, nor from any such obstruction as might proceed from their distribution in the pregnant uterus and in the placenta. He next proceeded to ascertain by experiment the effects of distension of the abdominal cavity in the rabbit and cat. He employed a double cannula, which was introduced through or at the side of the linea alba by a small puncture in narcotised animals; one arm of the cannula was connected with a vessel containing normal saline solution at the temperature of the blood, and the other with a manometer. Arrangements were further made to record graphically the respiration and the blood pressure in the carotid. The respiratory and blood pressure curves were taken after each 50 or 100 cubic centimetres of the solution had been injected into the abdomen from the vessel, and the phenomena which were presented proved to be remarkably uniform. In all the experiments, which numbered fifteen, it was found that the abdominal cavity could be filled with a large quantity of fluid, so that the parietes were quite tight, without either pulse or respiration being materially disturbed. It was only after very great distension had been produced that the respirations became more frequent and deeper, the expiratory effort being particularly well marked. This dyspnœa was apparently attributable to the diaphragm being pressed upwards and the capacity of the thorax correspondingly diminished, so that mechanical obstruction to respiration was occasioned. The effect of this was that the accessory respiratory muscles were brought more into play, and the breathing became more and more thoracic in character. But these efforts soon became insufficient to compensate for the defective action of the diaphragm. The respiratory centre became excited, but was soon paralysed by the venous blood. The respirations underwent a change: they became first shallow and slow, then deeper, dyspnœa finally occurred, and the animal died. If we turn now to the effects of the distension on the circulation, we find that when the distension became considerable the pulse at first increased in frequency, then became fuller, afterwards less frequent, and before the death of the animal usually suddenly smaller. The arterial blood pressure first began to rise when the frequency of the pulse had considerably diminished, and then gradually fell as the pulse became smaller. Dr. Heinricius gives in the article we have alluded to numerous tracings which collectively show that the abdomen may undergo great distension without abrogation of the more important vital functions. The abdominal cavity of a rabbit can support in this way the introduction of 500 cubic centimetres of fluid without difficulty, and nearly a litre and a half of fluid can be further injected before dangerous symptoms supervene, clearly showing how extraordinarily yielding the abdominal parietes are, and affording a proof that it is not necessary to appeal to the slowness with which they are distended in pregnancy and in cases of abdominal tumour to explain the slight interference with the main functions of life that occurs in those conditions.

STARVING SCHOOL CHILDREN.

THE recommendations of the Committee of the London School Board on the subject of providing food for starving school children, to which we drew attention a few weeks since, have called forth a very speedy and hopeful response, for on Saturday last an influential meeting was held at the Board's offices to inaugurate an association designed to take up the work which the report approved, and to carry it out upon the lines which the sub-committee indicated. As to the importance of the philanthropic work thus put in hand we have already expressed our opinion, and have only now to add an expression of the satisfaction with which we see its execution confided to so strong a committee as was nominated at last Saturday's meeting. The work which confronts that committee is vast and pressing, but happily the means by which it is to be accomplished have been clearly pointed out; and although there are agencies already in operation which deal in a fragmentary and imperfect way with the existing distress, there seems no reason to apprehend that any difficulty will be experienced in bringing these subsisting organisations within the scheme now happily launched under the auspices of the School Board. It may, therefore, be hoped that the work which has been put in hand with such excellent prospects of success will proceed without interruption, and that the urgent needs of starving school children will be adequately met by the charitable efforts of the well disposed. If this should prove to be the case, the result will be incomparably more satisfactory than it could possibly be if brought about by official means, for in works of charity there can be no question of the superiority, both in sentiment and in operation, of a voluntary organisation to a Government department.

UNHEALTHY BOARD SCHOOLS.

SINCE public attention has been directed to the subject of household sanitation, there have been so many exposures of incompetence or carelessness on the part of many who are occupied in this work that it need surprise no one to hear once more of absurd and serious errors. According to evidence tendered by the Works Committee of the London School Board, the drainage in several of the metropolitan schools is in a most unsatisfactory condition. Faulty plans combined with deficient supervision, and mismanagement in execution, have resulted in "scamped and imperfect work," costly in its doing and undoing, and injurious to health. The sum of £200 will probably be required to put in good order the drainage system of one school; £150 and £250 are the estimated expenses of readjustment in the case of others. These disbursements are now presumably inevitable. However annoying from the economist's point of view, they will not have been altogether wasted if they represent the price of a warning which will guide the Board officials in time to come. This unearthing of buried abuses has, indeed, a hopeful and educative side. It does not, perhaps, teach us much that is new respecting defects of sanitation themselves, but it can hardly fail to convince the most earnest believer in School Board management that nothing in school construction is more vitally necessary than skilled and active oversight at every stage of the work, and that such care has often in the past been conspicuously wanting.

EMPYEMA OF THE ANTRUM.

AT the last meeting of the Odontological Society Dr. Felix Semon read a paper on "Some Points in the Etiology, Diagnosis, and Treatment of Empyema of the Antrum." In the great majority of cases the antrum is affected secondarily, the pathological process starting either from the nose or from the teeth, but in some few cases it is quite possible that it has originated in the antrum itself. Any inflammatory process affecting either the mucous membrane of the bones of the nose, or the periosteum of the teeth or alveoli may set up purulent inflammation of the antrum. Authorities differ with regard to the relative frequency of these two main causes, but Dr. Semon thinks that clinical observation shows that an overwhelming majority of cases of antral empyema have their origin in affections of the alveoli of the teeth. Bayer of Brussels draws especial attention to the frequency of the combination of nasal polypi with purulent catarrh of the antrum, and as exceptional causes may be quoted its occurrence after section of the infra-orbital nerve by Malgaigne's method and from the stump of a tooth being forced into the antrum during an attempt to extract it. The diagnosis of empyema of the antrum may be divided into (1) cases in which there is no discharge into the nasal cavity, and (2) cases where from some cause the opening is not patent. In the great majority of cases in which the nasal opening is not obstructed the disease is characterised by a unilateral periodical discharge from one nostril, the periodicity corresponding to the different positions of the patient's head. From the anatomical position of the ostium maxillare the pus can only find exit when the antrum is nearly full or in certain postures, as when recumbent, especially when lying on the sound side, or leaning forwards, as in writing. Frontal headache, depression of spirits, and general derangement of health are frequent accompaniments. With a good light and a nasal speculum the pus may be seen issuing from the ostium maxillare, the superior meatus being healthy. If this is not clear, the nose should be carefully cleansed and the patient directed to lie down for a few seconds on his abdomen on a sofa, with the head low and inclined to the sound side, when upon resuming the horizontal position, if there is pus in the antrum, a greater or less quantity of discharge will be seen in the middle meatus. Where there is obstruction of the ostium maxillare there will be, in extreme cases, distension of the inner wall of the cavity, and in almost all cases violent neuralgic pains in the face and teeth of the affected side, and often swelling of the soft parts of the cheek, sometimes of an erysipelatous character. In forming a diagnosis it must not be forgotten that disease of the frontal or ethmoidal cells may coexist. Should an exploratory opening be necessary to clear up the diagnosis, it may be made through the nose, the socket of a tooth, or the alveolus, either of the two latter being preferred by Dr. Semon. Heryng maintains that in obscure cases electric trans-illumination is of great value. The patient is placed in a perfectly dark room and an electric lamp of not less than five volts passed into the mouth, when the maxilla will appear red and translucent on the sound side, but dark on the affected one. With regard to treatment, which is essentially free drainage, Dr. Semon decidedly prefers an opening through the mouth to one through the nose, as it is the most dependent part and most easily accessible to the patient for syringing; but in obstinate cases he advocates a counter-opening in the nose, and, that failing to effect a cure, a large opening through the canine fossa and stuffing the antrum with iodoform gauze.

SIR JAMES WHITEHEAD, BART.

WE congratulate the retiring Lord Mayor most heartily on the honour of a baronetcy which has been accorded to him by Her Majesty. Sir James Whitehead has thrown into the work of his office a wonderful amount of energy and interest. It becomes us specially to recognise his efforts to increase the support accorded to our great medical charities through the medium of the two great funds, the Hospital Sunday Fund and the Hospital Saturday Fund. He has the satisfaction of knowing that the former fund exceeds its record by over £1100 in the year of his mayoralty, and that he has done more than any of his predecessors to raise among working men a desire to make a systematic contribution to the hospitals and dispensaries more proportionate to the benefits they derive from them. One of the very last acts of his office was to preside at a meeting in the East-end for the promotion of provident dispensaries in London. We earnestly hope that Sir James Whitehead will continue his interest in medical charities, with the twofold determination to increase in them all that is truly charitable and properly pitiful, and to eliminate from them all that is injurious to the poor and demoralising to the industrial classes.

NOMENCLATURE.

THE recent advances of chemistry receive due recognition from pharmacists and therapeutists; but, while new chemical products are eagerly welcomed, some difficulty is frequently experienced in following their changing terminology. In the last edition of the British Pharmacopœia an effort was made to keep pace with chemical science, and many familiar terms appeared in new spelling, which, it is to be feared, formed an element of discomfort to many who had long been accustomed to a terminology which, if incorrect, had almost been sanctioned by general usage. In *Merck's Index* for 1889 a very useful plan has been adopted, the various "odd names," or obsolete names, are indexed, with a cross-reference to the proper chemical name, so that it is easy to find the chemical composition of many substances of which the "odd names" have come into general use, from their brevity or from some other reason. More than this,

however, can be conveniently realised from this useful little book, since in short space an explanation is given of the general rules guiding chemical nomenclature and orthography. Principles are given for determining the presence or absence of a final *e*, as in "strychnine," "strophanthin," "carbinol," "aldehyd." These may seem minor matters, but, to the initiated, such small differences count for a great deal, since in most instances they furnish a clue to the chemical position. Exceptions must of necessity exist, where terms have passed into popular use so thoroughly that any attempt to change them might be considered pedantic, but in scientific papers it is certainly desirable that these exceptions should be of rare occurrence. It would probably be impossible to effect a change from "glycerine" to "glycerin," which is the form in current usage in foreign treatises; it is still more hopeless to sigh for chemical conformity and its conversion to "glycerol." On the other hand, it is still possible to struggle for "sulphonal," in preference to "sulfonal," which appears in so many French papers and occasionally in English transcripts.

EPIDEMIC OF ENTERIC FEVER AT ST. HELENS.

THE borough of St. Helens has been visited by a very severe epidemic of enteric fever, the cases increasing in number from two in the month of May to no less than 126 in September; and the severity of the incidence of the disease in certain parts of the borough may be judged of by the fact that out of a total of fifty deaths which have occurred as yet no less than thirty-seven took place in the Eccleston and the Windle wards. Mr. R. McNicoll, in reporting on the outbreak, exonerates milk as a cause of the prevalence, in so far as its diffusion, if not its origin, is concerned, and the town water does not seem to admit of suspicion. But the conditions of sewerage, and to some extent those of excrement disposal, are precisely such as to favour a wide diffusion of the poison of enteric fever when once introduced; and both Mr. McNicoll, as local medical officer of health, and inspectors from the Medical Department of the Local Government Board have—at least since 1882—urged that these matters should be dealt with. Whatever has been done in this respect, the want of a main sewer has been allowed to stand over; and to the conditions resulting from this default Mr. McNicoll ascribes the epidemic. It has now been determined to deal with the matter, and it is to be hoped that, in view of the severe experience through which St. Helens is passing, final measures will also be adopted to secure permanent abatement of all forms of closets causing danger to health. During October the epidemic showed signs of abatement, but the autumn months are not the most favourable for eradicating the enteric fever poison when once widely diffused.

PNEUMOTHORAX DURING ASTHMA.

AT the meeting of the Medical Society of the Paris Hospitals on Oct. 25th, M. Troisier related the case of a woman aged twenty-seven, who since the age of nineteen had been subject to attacks of spasmodic asthma. In June, 1887, she was admitted under his care suffering from a violent attack. Two other attacks followed, and on July 1st the signs of pneumothorax on the left side were observed, it having arisen gradually and without dyspnœa. About two litres and a half of air were evacuated by Potani's aspirator, and on the following day the remainder of the effused air was reabsorbed. Since then the patient had had several asthmatic paroxysms, and showed slight emphysema. M. Rendu mentioned a case of pneumothorax during whooping-cough, and he and others spoke of the relief obtained by puncture of the chest in such cases.

PROPOSED TESTIMONIAL TO PROFESSOR STRUTHERS.

AT a preliminary meeting of former pupils of Professor John Struthers, held on the 26th ult. at 16, Cavendish-square, and presided over by Sir Andrew Clark, Bart., as an old friend of Professor Struthers, it was resolved to initiate a movement for presenting Professor Struthers with a testimonial. A large number of his pupils have already taken up the idea enthusiastically, including Sir W. Guyer Hunter, M.P., Dr. R. Farquharson, M.P., Professors W. S. Playfair of London, Rutherford of Edinburgh, Sinclair of Manchester, Reid of Aberdeen, Wardrop Griffith of Leeds, Drs. Mitchell Bruce, Goodhart, Walsham, Stephen Mackenzie, Clement Godson, John MacCombie, Albert Westland, R. W. Burnet, Seymour Taylor, Leith Napier, and other medical men, both in London and the provinces. Sir Andrew Clark was appointed chairman of the London Committee, and Dr. James Anderson secretary and treasurer. The precise form of the testimonial was left at present undecided, but it is anticipated that it will take the form of his portrait to be presented to himself, and a scholarship bearing his name to be founded at the University of Aberdeen. It was proposed that not only Professor Struthers' former pupils at the Universities of Edinburgh and Aberdeen, but also any of his personal friends who wish, may join in the movement, and we are asked to state that subscriptions may be notified to Dr. James Anderson, 84, Wimpole-street, London, W.

COMPENSATION THE COMPLEMENT OF NOTIFICATION.

THE *North British Daily Mail* comments on the recent inquests in East London on children dead from scarlet fever, in which the parents, respectively a tailoress and a cigar-maker, carried on their business and went to their work during the illness of the children. Our contemporary says it is not enough to censure the parents in such a case, and argues with much force that where the law requires persons to abandon their work for the sake of the public safety, the public should pay them compensation. We entirely agree with our contemporary. Notification and, *where necessary*, compensation must go together. This is the fine point to determine. It is obvious that some case of necessity and poverty must be made out. A person infected is rightly bound not to expose himself at the risk of others. Clearly, this is a case for legal interference. The onus of proving need for compensation should rest with the parents; but it is a very light burden in such cases as those under discussion. We apprehend that in most towns where the isolation principle is enforced compensation is awarded in the majority of cases of the kind. It is so in Leicester.

COOLIES AND SANITATION.

IN the matter of sanitation the lower-class native of India, notwithstanding some wholesome caste regulations, is well nigh as backward as it is possible for man to be. Purity of air and of water-supply, personal cleanliness and sewage removal, are to him of little moment. It is true that his own carelessness in this particular has had much to do with the causation of pestilences which periodically ravage his country; but of this he knows nothing. He lives as his fathers lived, and is content. But such placid negligence will not satisfy the majority of his more enlightened neighbours, and we need not therefore be surprised if occasionally complaints on the part of the latter should show their disapproval of his unwholesome laxity. Such a difference of opinion has lately found expression in

the Rangoon press. The coolie quarter in that city, which is in a characteristically filthy condition, has already been the starting-point of several outbreaks of disease. Singularly enough it is this district of all others which enjoys a peculiar immunity from disturbance by the sanitary authorities, as it is beyond the area (about half of the whole town) controlled by the municipal conservancy board. A further extension has been suggested and is evidently required, but the necessary expense interposes a difficulty. The ratepayers of other districts naturally object to be taxed for the cleansing of the coolie quarter, while the latter pay no more than a nominal duty into the civic exchequer. Entering Burmah exceedingly poor, they escape the dues which are paid by the poorest natives. They live very cheaply, save a little, and in due time return to India. Under the circumstances, a light tax on behalf of needful sanitary measures does not seem at all unreasonable, and, in consideration of their numbers (25,000),—would hardly be felt by individuals. We may therefore hope that the local authorities will be able to see their way to the abatement of nuisances which must, until they are removed, constitute a standing menace to the health and lives of the whole population.

IODOFORM GAUZE IN POST-PARTUM HÆMORRHAGE.

DR. O. PIERING, assistant in Prof. Schauta's obstetric clinic in Prague, has published his experience in the employment of Dührssen's plan of plugging the uterus with iodoform gauze for post-partum hæmorrhage due to an atonic condition of the organ. Dührssen recommends that, when post-partum hæmorrhage comes on, the bladder should be emptied, and forcible friction and intra-uterine irrigation of hot or cold water, along with ergotinin hypodermic injections employed; that if the hæmorrhage still continues, the cavity of the uterus should be filled with iodoform gauze, the irritation produced by this setting up active and permanent contraction. The method has, according to Dührssen, the advantages of great certainty, complete harmlessness, and facility in its performance. Olshausen, Veit, and Tehling, however, say that the contraction set up is not always permanent, and that the method is not so free from danger as Dührssen believes. In consequence of these conflicting views, Dr. Piering resolved to give the method a trial, and he details several cases in which he employed it with complete success. In no case was any harm done by it. He advises that resort to the plug should not be too long delayed, and he prophesies an important future for the plug of iodoform gauze in post-partum hæmorrhage.

BETHNAL-GREEN "POOR'S LAND."

IN a city like London, and particularly in its more populous districts, we can hardly go wrong in preserving for public recreation any vacant spaces which still remain. It is therefore with real satisfaction that we have noticed a protest recently issued by the inhabitants of the district in favour of the preservation in its present condition of what is known as the "Poor's Land" in Bethnal-green. This ground, which is situated in Cambridge-road, E., consists of several contiguous portions, in all amounting to six and a half acres area. Like many other open spaces, it has been threatened with absorption into the tract of stone and lime by which it is surrounded. Unlike many such, it is fortunately protected by a prohibition enjoined on trustees by its original possessors, who granted it *in perpetuo* as a pleasure ground, and forbade the erection upon it of any building whatever. Notwithstanding this, a majority of the present trustees, with the approval of the Charity Commissioners, have agreed to dispose of half of it as a site for certain public buildings—namely, a free library, town hall, and infirmary. Than these, no more useful edifices could be designed; but it must not be forgotten that Bethnal-green is already furnished with institutions which, if not identical with them, at all events fulfil the same functions, and also that other sites are obtainable. Public land, on the contrary, if it be once parted with, is not usually recovered. Understanding this, and the importance of retaining in so populous a district a city "lung" in fairly healthy condition, we congratulate the ratepayers of Bethnal-green on the stand they have made in this dispute, and on their success in having obtained for their cause the support of the County Council.

ENGLISH MEDICAL MEN IN FRANCE.

THE importance of the communication which was received from the Foreign Office at the last ordinary meeting of the College of Physicians can scarcely be measured until some further details are given; but that the gravity of the situation was fully appreciated by the Fellows can be gathered from the matter being immediately referred to the Council for consideration and report. The communication briefly stated that in future only in exceptional cases would English medical practitioners be allowed to apply to be examined for a licence to practise in France. What rule would be followed in the selection of these "exceptional cases" was not divulged. Hitherto English medical men desiring to practise in France have been put to considerable trouble and annoyance by having to obtain a licence by examination, whatever their degrees and professional standing in this country. This was always regarded as a curious anomaly in a country which tolerates so many of the shady sides of semi-medical work. The new regulation may be capable of explanation, but at present it seems very much like a stringent measure for creating a monopoly. This regulation is the more surprising in view of the cordial expressions of goodwill so recently exchanged at the various meetings at the Paris Exhibition.

TRISMUS FOLLOWING VACCINATION.

WE have received some further information as to the case of trismus following vaccination to which we referred last week. The details lack completeness as to certain dates and other circumstances associated with the vaccination, but they suffice to show the exceptional nature of the symptoms which resulted. From the date when the child's arm "took" it began to ail, and when first seen with trismus, "about three weeks" after the performance of the operation, the vaccination marks had sloughed, coalescing and leaving a somewhat considerable cavity. Within two days of this the child is stated to have died of distinct tetanic symptoms. We have already explained that six other children were vaccinated with the same lymph; and since no word of complaint is reported as to these six, we are bound to assume that the lymph as such was not the cause of the mischief. The sloughing, under these circumstances, seems to have been due to some condition affecting this one child, and similar cases are known to have arisen where a child has been either recently exposed to the influence of some other morbid or specific infection or is actually incubating such infection, the specific fever or other allied ailment appearing to abort on the occurrence of sloughing in connexion with the vaccinia inoculated. The undue irritation thus induced might not unreasonably be regarded as playing the same part in the production of tetanus as is played in other instances by wounds of a different character. Vaccination necessarily produces a wound which, although superficial, is the seat of a specific infection; and infants

submitting to it cannot, whilst securing the immense boon of immunity from small-pox, which formerly decimated our infant population, be altogether preserved from the risks which other trivial wounds of different sorts also occasionally involve. But such cases as the one we report should tend to the exercise of much care as regards the vaccination of children who are liable, by reason of ill-health or exposure to the infection of other contagia, to be subject to complications during the course of their inoculated vaccinia.

"THERMO-PALPATION."

IT has been known for some time that there is a difference in the surface temperature of the body corresponding to the organs underneath—that is to say, the temperature is higher over the lungs than over the liver or the heart. From a communication published in the *Orvosi Hetilap*, one of the chief medical journals in Hungary, by Herr Jonás and Dr. Benczúr, it appears that this fact is available as a basis for a novel method of physical examination which may be styled "thermo-palpation." These observers say that it does not require any peculiar sensitiveness of touch or any special education to appreciate the difference of temperature on passing the fingers over the surface of the body from the situation of the lungs to that of the liver, and that patients themselves and students who had not yet learned percussion were quite able accurately to detect the height of a pleuritic effusion by the difference of temperature. Diseased and healthy organs can be mapped out in this way by going over the surface, first, say, downwards and then upwards, when the line of demarcation will be distinctly felt. The general principle appears to be that organs containing air, such as the lungs and intestines, permit of greater surface warmth over them than more solid organs such as the heart, liver, spleen, &c. Of course, instead of using the fingers, a differential thermometer may be employed, and much slighter differences may be recognised than is possible by the touch alone. The authors claim for thermo-palpation that it is so simple that it may be used by all practitioners as an additional method of examining their patients. Another advantage which occurs to us is that if the method is as trustworthy as they believe it to be, a good many sensitive patients will greatly prefer it to that of percussion, which, even when carried out with as much consideration for the patient as possible, is to some persons exceedingly distressing. Indeed, it is probable that some people avoid as much as possible sending for a medical man from the dread they have of being percussed.

NEW MEDICAL ASSOCIATION IN LIVONIA.

THE medical men practising in Livonia have recently established an association which is to hold an annual meeting lasting two or three days. The first of these was held last month at Wolmar, no less than ninety-nine members being present. A good many important papers were read and discussions held; some of them relating to subjects upon which Livonian practitioners have particularly good opportunities of forming valuable opinions, such as leprosy and the treatment of granular lids. It was decided that the officers of the newly-formed association for the current year should be: President, Dr. Truhart of Fellin; secretaries, Dr. Mercklin of Riga and Dr. Otto of Dorpat; also that the place of meeting next year should be Wenden. An arrangement was made that the *St. Petersburger Medicinische Wochenschrift*, one of whose editors, Prof. E. von Wahl of Dorpat, is one of the members, should act as the organ of the association, publishing all notices to members, and, what is of more consequence to the outside world, abstracts of the papers and discussions, which would otherwise very probably never be generally known.

MEDICAL INSTRUCTION IN INFECTIOUS DISEASES.

AS our readers are aware, Clause 4 of the Poor-law Act of 1889 authorises the use of the hospitals of the Metropolitan Asylums Board for medical instruction, if the Asylum Managers think fit, and subject to such rules and regulations as the Local Government Board may make. We learn that, on Dr. Seaton's motion, a small and influential committee of the Metropolitan Asylums Board has been appointed to consider the practicability of the suggestions for so using the hospitals, and the Royal College of Physicians have deputed Dr. Gee, Dr. Samuel West, and Dr. Seaton to confer with this committee on the subject. The Notification Act makes the study of these diseases more than ever important, and both the Medical Council and the Royal College of Physicians are displaying commendable earnestness in facilitating such study.

COOLING OF THE BODY BY SPRAY.

DR. S. PLACZEK, following up some laboratory experiments by Preyer and Flashaar, on the effect of spraying a considerable part of the body surface of animals with cold water, has applied the spray for the purpose of reducing febrile temperatures in human beings. In the case of a man suffering from phthisis, whose temperature was high, he found that by spraying about a pint of water at between 60° and 70° F. over his body the temperature fell to normal, and continued so for several hours. Again, a similar method was satisfactorily applied in the case of a girl with diphtheria. In the healthy human subject the spray lowered the temperature nearly 2°, and in animals which had been put into a condition of septic pyrexia by injections of bacteria the temperature was reduced to normal by the spray. By keeping healthy guinea-pigs and rabbits some hours under spray and using from half a pint to a pint of water at the temperature of the room—44° to 62°—the temperature of the animals fell several degrees.

INTERNAL URETHROTOMY IN CUBA.

DR. IGNACIO G. PLASENCIA, in his inaugural communication on the occasion of his admission to the Cuban Royal Academy of Medical, Physical, and Natural Sciences, gives an account of 133 cases in which he has performed internal urethrotomy. The conclusion to which practical experience as surgeon to the Mercedes and Paula Hospitals leads him, as compared with what he had previously seen in European clinics, is that strictures treated by cutting from within do particularly well in Cuba—a good deal better than in Europe,—the climate appearing to favour this operation in a remarkable manner, urethral fever being much less frequent, and, when present, less severe, than is usually found to be the case after urethrotomy in Europe. None of his cases were complicated by purulent infection, and extravasation of urine occurred in five only of the oldest and tightest strictures, which were not operated on as soon as they ought to have been. The instrument preferred by Dr. Plasencia is that of Maisonneuve. Four cases died, but some time after the operation, and apparently not in consequence of it.

TOXIC NEPHRITIS.

A DISCUSSION took place at the recent Congress of the Italian Society of Medicine upon Bright's disease (see *La France Médicale*, No. 127), in which the views of Semmola as to the dependence of albuminuria upon malassimilation of proteids were in part adopted by M. Rattone, who declared that nephritis is not invariably due to a primary renal lesion, but to a transmission through the kidney of

substances which have a toxic action and produce inflammation of the vessels of the connective tissue and epithelium. In the majority of cases acute nephritis is, he thinks, due to the introduction of an organic (microbe or its product) or inorganic poison, as from chemical substances. M. Maragliano held the same view, but pointed out that the nephritis occasionally supervening in the course of pneumonia must be due to the absorption of toxic products from the diseased lung, but not of the micrococcus pneumoniæ itself, for this, according to Devoto and Rindfleisch, has not been found in the kidney. M. Rattone added that it was the same with tuberculosis; the bacilli were not found in the inflamed kidneys in that disease.

THE ALLEGED INOCULATION OF GLANDERS.

OUR contemporary the *Berliner Klin. Wochenschrift* of Nov. 4th states, with reference to the case of Dr. G. Hoffmann, assistant in the Hygienic Institute at Vienna, who fell a victim to glanders whilst conducting experiments with the virus (see THE LANCET, Nov. 2nd, p. 920), that the original surmise of his having contracted the disease through the medium of a hypodermic syringe has been disproved by the result of the post-mortem examination, which showed the respiratory mucous membrane to be the starting point of the infection.

MEDICAL REGISTRATION.

WE have been requested again to call the attention of our readers to the important notice which appears in our advertisement columns in regard to medical registration. It may be well to repeat and emphasise here that the failure upon the part of a registered practitioner to notify any change in his address renders him liable to have his name erased from the "Medical Register," and, in consequence, "to lose the right to hold certain appointments, to sign valid certificates, or to recover in any court of law charges for professional aid, advice, and visits, and the cost of any medicines or other medical or surgical appliances rendered or supplied by him to his patients."

THE BOGUS DIPLOMA TRADE IN THE UNITED STATES.

TO judge from the columns devoted to the capture of "Dr. Bradbury," the chief trader, as alleged, in the bogus diplomas we alluded to last week, one would think that it was the great event of the year. Without pretending to think such characters worthy of more than a paragraph, it is satisfactory to find the State authorities bent on exterminating this great fraud, and we shall be heartily glad to learn of their success.

PIG TYPHOID AND HUMAN TYPHOID.

DR. CAMERON, medical officer of health at Hendon, in a report upon a fatal outbreak of typhoid fever at a farm at Hendon, in September, points out that a month or six weeks before upwards of eighty pigs had suffered from swine fever. He thinks he could definitely exclude any possibility of the infection having been derived from outside the farm, or from contamination of a well on the premises or other local defects. Dr. Cameron notes the coincidence of the outbreak of swine fever, without, however, committing himself to a definite opinion as to this being the source of the disease in the inmates of the farm. The *Field* (Oct. 26th), in reference to this report, reminds us that Dr. Budd of Clifton pointed out the analogy between pig typhoid and human typhoid, but denied that the diseases were identical or intercommunicable, and Professor Axe has recently gone further as to their pathological identity, but also denies their intercommunicability; whilst Dr. Klein is emphatic as to the vital distinction between the two affections.

METROPOLITAN HOSPITAL SUNDAY FUND.

THE total amount received this year is £41,744 12*s.* 11*d.* This sum exceeds the record of the best collection in any previous year of the Fund's existence by £1137 5*s.* 3*d.*

FOREIGN UNIVERSITY INTELLIGENCE.

Prague.—The number of students in the German and Bohemian medical faculties is 611 and 1057 respectively, which, though fortunately somewhat less than last year, is still far too great for the accommodation provided. Complaints are made that the lecture theatres are far too small for the number of students that are crowded into them, and that, with the exception of the surgical clinic in the general hospital, all the clinics are too small and too overcrowded to be healthy either for students or patients. The gynæcological clinic, under Professor Schanta, is indeed often so overcrowded that some of the patients have to be put upon straw mattresses on the floor, and in consequence of this state of things it is sometimes impossible to undertake operations, as the after-treatment would be necessarily so lacking in hygienic conditions. The newly appointed Professor of Hygiene in the German University is in great want of enlarged accommodation and a better supply of apparatus. Hygiene in the Bohemian University is taught by Dr. Kabrhel, and it is expected that a hygienic laboratory will very shortly be erected. A new system of dental instruction is proposed by the Professorial Senate, according to which the students of that department will be no longer taught in the Polyclinic, but in a special Odontological Institute.

Buda Pesth.—The number of medical students this session is 1181, or three less than last year. There is also a slight falling off in the pharmaceutical faculty, but the diminution in both cases is apparent rather than real. Indeed, were it not for the new law concerning the military service of students, which has obliged some 150 young men to quit the University for the present, it is probable that the numbers would show an increase.

Kiel.—Dr. Rügheimer has been appointed Extraordinary Professor of Pharmaceutical Chemistry. Professor Theodor Zincke of Marburg has been appointed Professor of Chemistry in succession to Professor Ladenburg.

Marburg.—Professor R. Anschütz of Bonn is likely to be appointed to the chair of Chemistry.

Vienna.—Dr. Julius Hochenegg has been recognised as *docent* in Surgery and Dr. Ludwig Piskacek as *docent* in Obstetrics and Gynæcology.

THE United College of St. Salvator and St. Leonards was opened at St. Andrews on the 29th ult. by Principal Donaldson, who delivered the inaugural address before a good attendance of students, members of council, and of the general public. In the course of his address he announced that since the last meeting a donor had presented the University with £2000 to erect and equip a laboratory for the Chemical chair. There was, Professor Donaldson said, much need of a corresponding laboratory for the chair of Physics, and indeed the work of all the sciences would be greatly facilitated and extended by ample provision for experiment. He alluded to the satisfactory progress their library was making, and, in conclusion, expressed his strong conviction that St. Andrews University was peculiarly well circumstanced for realising a high ideal of a University, possessing, as it did, special advantages.

WE regret to learn that Dr. Nicolson, Superintendent of Broadmoor Criminal Lunatic Asylum, was assaulted by one of the inmates, a man named Lyons, when visiting the wards about noon on Sunday, the 3rd inst. After an interview with Lyons Dr. Nicolson was proceeding on his way along the corridor, when he was struck on the head with a stone thrown with great force by Lyons. The attack was evidently premeditated by the inmate, as he had concealed the stone about him in anticipation of an opportunity. Fortunately, Dr. Nicolson's hat broke the full force of the blow, which took effect above the left temple, leaving a deep scalp wound and contusion. Dr. Nicolson is going on satisfactorily, and it is not anticipated that the results of the injury will prevent him from returning to duty in the course of a few days.

THE Société Médicale des Hôpitaux of Paris has, at the request of Madame Vincent, undertaken the award in July, 1891, of a prize of 1000 francs to the author of the best work on "Angina Symptomatic of an Affection of the Heart, and on Arterio-sclerosis." This work (printed or in manuscript) must have especial reference to the treatment of these diseases. Should the award not be made by the above date, the examination of works bearing on the question will be adjourned for another two years. The works, which must be written in French, should be sent to the General Secretary of the Société Médicale, 5, Rue de l'Abbaye, Paris, not later than April 30th, 1891.

THE Draft Report of a sub-committee appointed for the purpose of considering the question of hospital reform was, on the 4th inst., accepted by an influential preliminary committee of medical men, and will be laid before a general meeting of the whole profession in Birmingham on Wednesday, November 20th.

THE Bradshawe Lecture will be delivered by Thomas Bryant, Esq., on Thursday, December 5th, at 5 P.M., the subject of the lecture being "Colotomy, Lumbar and Iliac, with special reference to the choice of Operation."

ON Wednesday the Royal Commission on Vaccination examined Dr. Grimshaw, Registrar-General of Ireland, and Mr. F. F. MacCabe, Medical Commissioner to the Irish Local Government Board.

THE American medical journals announce the retirement of Dr. T. Gaillard Thomas from the position of Professor of Clinical Gynæcology in the College of Physicians and Surgeons, New York.

THE Morton Lecture, on "Cancer and Cancerous Diseases," will be delivered by John Marshall, Esq., F.R.S., on Monday, November 18th, at 5 P.M.

THE death is announced of Dr. Baierlacher of Nürnberg, a well-known authority on electro-therapeutics, in his sixty-sixth year.

HUMPHRY DAVY ROLLESTON, M.B., B.Sc. in first class of Natural Science Tripos, 1886, has been elected to a Fellowship in St. John's College, Cambridge.

KING'S COLLEGE HOSPITAL.—The Committee of Management have just been able to reopen a ward of thirteen beds, being one of two which were closed in 1885 for lack of funds. It is hoped that the benevolent public will support the committee in this extension of the usefulness of the charity in this its fiftieth year. The ward will be devoted to the relief of women, for whom the accommodation available has been found insufficient.

THE STUDY AND CURATIVE TREATMENT OF INSANITY.

PROPOSED NEW HOSPITAL.

ON Tuesday last, at the weekly meeting of the London County Council at the Guildhall (Lord Rosebery in the chair), Mr. R. Brudenell Carter, chairman of the committee appointed to inquire into, and to report to the Council upon, the advantages which might be expected from the establishment, as a complement to the existing asylum system, of a hospital with a visiting medical staff for the study and curative treatment of insanity, submitted the following report: The committee had received important *vivâ-voce* evidence from sixteen distinguished members of the medical profession, including not only eminent experts in insanity, and physicians chiefly engaged in the treatment of diseases of the nervous system, with which insanity is not necessarily associated, but also physicians and surgeons in more general practice. Printed questions had been sent to every medical superintendent of a public asylum in England and Wales, as well as to a few other persons of admitted authority, including the medical officer of St. Pancras Workhouse, who has had large opportunities of witnessing the operation of the present system. Sixty-five replies to these questions had been received and analysed. The committee had arrived at the conclusion that a hospital of the kind described would be likely materially to increase the present knowledge of the nature and causes of insanity, and therefore ultimately to increase the means available for its prevention and for its cure. They were consequently prepared to make the following recommendations:—

"(*a*) That an adequately equipped hospital, containing one hundred beds, for the study and curative treatment of insanity in pauper lunatics of both sexes, be established in the metropolis, and that it be under the direction and control of the Council. (*b*) That the ordinary medical staff of the hospital consist of a chief resident medical officer, who has had asylum experience, of an assistant resident medical officer, of four visiting physicians, each of whom shall hold office as physician or assistant physician in a general hospital, and of a pathologist. The members of this staff to perform such duties, and to receive such stipends or honoraria as the Council may from time to time direct. (*c*) That, in addition to the ordinary medical staff, the following honorary medical officers be appointed—namely: A surgeon, an ophthalmic surgeon, an aural surgeon, a laryngologist, and a gynæcologist. Each of these honorary officers should hold, or should have held, similar office in a general hospital, and they should all be available as consultants whenever required by the physicians, or for the performance of operations which fall within their respective departments, when such operations are decided upon." The Committee were of opinion, however, that these recommendations could not be adequately considered by the Council apart from the grounds on which they rest, and also that an account of these grounds should be rendered accessible to the ratepayers, in explanation of the expenditure which would be required in order to carry the recommendations into effect. They therefore recommend: "That your committee be instructed to prepare a detailed report upon the question submitted to them, with a sufficient summary of the oral and written evidence which they have received; and that this report and summary be printed prior to their presentation to the Council."

This report was, after discussion, agreed to.

THE ALLEGED FALSE CERTIFICATION OF DEATH

MR. ARTHUR BLOUNT of Hornsey appeared before Mr. Marsham, at the Dalston Police-court, to answer an adjourned summons, taken out by Mr. Charles Townley, the superintendent registrar of St. Mary's, Islington, for giving a false certificate of death. The prosecution had been instituted at the instance of the Registrar-General, and Mr. Besley now appeared for the defence. It was alleged

last week that the defendant had issued certificates signed in blank for the use of an unqualified man named Cooper. Since the last hearing some correspondence has passed between Messrs. Berger, Wylde, and Moore, solicitors, to the defendant and the Registrar-General and Mr. Townley, which resulted in Mr. Townley writing to Mr. Blount, saying that he would go to the court on the adjournment and unconditionally and entirely withdraw the charge, he being satisfied that Cooper copied Mr. Blount's signature without that gentleman's authority. Mr. Townley added that had Mr. Blount put himself in communication with him or the Registrar-General, and given the explanation he had since made, he might have saved himself considerable trouble.—Mr. Besley replied that Mr. Blount was astounded at the course which had been adopted. There was no intimation on the summons as to who had issued it; and, in fact, the defendant did not know exactly what the charge was until he came into court.—Mr. Marsham said he was satisfied that Mr. Blount was perfectly innocent of the transaction, and it was a pity Cooper could not be brought to justice. He should dismiss the summons with £5 5*s.* costs, and he would add that the defendant left the court without a stain on his character.

SOMERVILLE *v.* ROSE.

(*From a Correspondent.*)

ON Monday, Oct. 28th, consolidated action was brought by a Mr. Somerville against Dr. H. Cooper Rose and Mr. Herbert Cooper of Hampstead for libel. On Oct. 10th, 1882, they had signed a certificate of lunacy based on the facts observed and communicated as set forth in the certificate. Just within the period of six years, the completion of which would have barred the action as exceeding the statute of limitation, a writ was issued, and after waiting for hearing for a year or more the case was decided by the Lord Chief Justice of England on the 27th ult. The counsel for the plaintiff, acting of course in accordance with his brief, made statements which were not founded on fact, and which would lead the public to believe that Dr. Rose had exhibited a want of care in giving the certificate; he stated, however, that no collusion or conspiracy had been suggested. Had it been necessary for the defendants' counsel to reply, of course all the statements would have been refuted. The fact was elicited before the certificate was given by Dr. Rose that the plaintiff had been in the habit of taking sedatives in sundry forms and in large doses. The rapid recovery of the patient when all these sources of mental disturbance were removed can be easily understood. About a fortnight was sufficient time to enable her husband to fetch her home. Mr. Walton, the defendant's counsel, relied on the fact that the right of plaintiff to sue was barred by 8 & 9 Vic., c. 100, Section 105, and the Lord Chief Justice immediately assented, and gave judgment for the defendants, with costs, remarking that the question had been decided over and over again, and that if it had been otherwise the statute would be most cruel and oppressive. Had the clause in 8 & 9 Vict., c. 100, failed, the clause in the recently passed Lunacy Law Amendments Act, which came into immediate operation and is retrospective, would doubtless have been pressed. This clause provides that no action shall lie against a medical man for giving a certificate in lunacy, unless it can be proved that he did not exercise due and ordinary care in performing the function, &c. The certificate as handed into court is as follows: "Schedule A, No. 2, Sections 4, 5, 8, 10, 11, 12, 13. I, the undersigned, Henry Cooper Rose, M.D., being a duly registered practitioner, and being in actual practice as a surgeon, hereby certify that I, on the 7th day of October, 1882, at 11, Christchurch-road, Hampstead, in the county of Middlesex, separately from any other medical practitioner, personally examined Anne Elizabeth Somerville, married, of 11, Christchurch-road, Hampstead, in the county of Middlesex, and that the said Anne Elizabeth Somerville is a person of unsound mind, and a proper person to be taken charge of and detained under care and treatment, and that I have formed this opinion upon the following grounds—viz.: 1. Facts indicating insanity observed by myself. I found her very much excited. She had smashed a mirror over the mantelpiece; and when I asked her why she did it, she told me she had done so because it was her birthday, and she wanted to call public attention to the fact. She also told me that she heard voices at night that kept her from sleeping. Her appearance and manner were both indicative of a person of unsound mind. 2. Other facts (if any) indicating insanity communicated to me by others. Her husband, David Hughes Somerville, told me she was often violent, that she often threatened to destroy herself, and that she behaved with violence towards her own children.—HENRY COOPER ROSE, M.D.—Penrose House, Hampstead, Oct. 18th, 1882."

Dr. Maudsley, Dr. Schofield, Dr. Thompson, Mr. Boulting, and the two defendants, Dr. H. Cooper Rose and Mr. Herbert Cooper, were all in court prepared to affirm that the plaintiff was of unsound mind at the time the certificates were signed.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN twenty-eight of the largest English towns 5783 births and 3202 deaths were registered during the week ending Nov. 2nd. The annual rate of mortality in these towns, which had been 17·5, 18·7, and 17·5 per 1000 in the preceding three weeks, was again 17·5 last week. During the first five weeks of the current quarter the death rate in these towns averaged 17·8 per 1000, and was 2·4 below the mean rate in the corresponding periods of the ten years 1879-88. The lowest rates in these towns last week were 11·6 in Brighton, 13·9 in Cardiff, 14·3 in Oldham, 14·6 in Leicester, and 14·7 in Nottingham. The rates in the other towns ranged upwards to 22·5 in Halifax, 25·0 in Blackburn, 28·2 in Newcastle-upon-Tyne, and 32·0 in Preston. The deaths referred to the principal zymotic diseases, which had been 414 and 356 in the preceding two weeks, rose again last week to 364; they included 79 from scarlet fever, 62 from diarrhœa, 58 from measles, 55 from whooping-cough, 59 from "fever" (principally enteric), 51 from diphtheria, and not one from small-pox. No death from any of these zymotic diseases were registered last week in Brighton or in Cardiff; whereas they caused the highest death-rates in Newcastle-upon-Tyne, Sunderland, and Plymouth. The greatest mortality from scarlet fever occurred in Blackburn, Salford, and Plymouth; from diarrhœa in Manchester, Bolton, and Preston; from measles in Norwich, Newcastle-upon-Tyne, and Sunderland; from whooping-cough in Portsmouth; and from "fever" in Preston. The deaths from diphtheria included 31 in London, 6 in Manchester, and 2 in Portsmouth. Small-pox caused no death in any of the twenty-eight great towns; and no small-pox patient was under treatment at the end of the week either in the Metropolitan Asylum Hospitals or in the Highgate Small-pox Hospital. The number of scarlet-fever patients in the Metropolitan Asylum and the London Fever Hospitals at the end of the week was 1500, against numbers increasing in the preceding eighteen weeks from 559 to 1450; 135 cases were admitted to these hospitals during the week, against 188 and 182 in the previous two weeks. The deaths referred to diseases of the respiratory organs in London, which had been 300 and 281 in the preceding two weeks, rose again last week to 300, but were 117 below the corrected average. The causes of 84, or 2·6 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Nottingham, Portsmouth, Brighton, and in four other smaller towns; the largest proportions of uncertified deaths were registered in Huddersfield, Blackburn, Bradford, and Hull.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 20·5 and 19·3 per 1000 in the preceding two weeks, rose again to 20·3 in the week ending Nov. 2nd; this rate exceeded by 2·8 the rate that prevailed during the same week in the twenty-eight large English towns. The rates in the Scotch towns ranged from 11·6 and 14·6 in Paisley and Greenock, to 23·7 in Glasgow, 23·8 in Leith, and 25·3 in Perth. The 519 deaths in the

eight towns showed an increase of 25 upon the number in the previous week, and included 13 which were referred to diarrhœa, 10 to scarlet fever, 10 to whooping-cough, 9 to diphtheria, 7 to measles, 4 to "fever" (typhus, enteric, or ill-defined), and not one to small-pox; in all, 53 deaths resulted from these principal zymotic diseases, against numbers declining in the five previous weeks from 74 to 56. These 53 deaths were equal to an annual rate of 2·1 per 1000, which exceeded by 0·1 the mean rate last week from the same diseases in the twenty-eight English towns. The deaths attributed to diarrhœa, which had been 19, 16, and 12 in the preceding three weeks, were last week 13, and included 5 in Glasgow, 2 in Dundee, and 2 in Aberdeen. The 10 fatal cases of scarlet fever showed an increase of 4 upon the number in the previous week; 5 occurred in Leith, 2 in Glasgow, and 2 in Perth. The deaths from whooping-cough, which had declined in the four previous weeks from 15 to 10, were again 10 last week, including 5 in Glasgow and 3 in Edinburgh. The 9 fatal cases of diphtheria showed a decline of 4 from the number in the previous week; 3 were returned in Edinburgh and 2 in Glasgow. The 7 deaths from measles also showed a decline, 3 occurring in Aberdeen and 2 in Edinburgh. The deaths referred to "fever," which had been 11 and 6 in the two preceding weeks, further declined last week to 4, of which 2 were returned in Glasgow and 2 in Edinburgh. The deaths attributed to acute diseases of the respiratory organs in the eight towns, which had been 87, 118, and 122 in the preceding three weeks, further rose last week to 153, and exceeded the number in the corresponding week of last year by 52. The causes of 71, or nearly 14 per cent., of the deaths registered in the eight towns were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 26·5 and 21·0 per 1000 in the preceding two weeks, rose to 27·3 in the week ending Nov. 2nd. During the first five weeks of the current quarter the death-rate in the city averaged 24·8 per 1000, the mean rate during the same period being 16·2 in London and 17·1 in Edinburgh. The 185 deaths in Dublin showed an increase of 43 upon the number in the previous week; they included 11 which were referred to "fever," 7 to diarrhœa, 1 to scarlet fever, and not one either to small-pox, measles, diphtheria, or whooping-cough. Thus the deaths from these principal zymotic diseases, which had been 23, 19, and 18 in the three preceding weeks, were last week 19; they were equal to an annual rate of 2·8 per 1000, the rate from the same diseases being 1·6 in London and 2·3 in Edinburgh. The deaths referred to "fever" (typhus, enteric, or ill-defined), which had been 10 and 6 in the two preceding weeks, rose last week to 11, and exceeded the number returned in any previous week of this year. The 7 fatal cases of diarrhœa showed a decline of 2 from the number in the previous week. The deaths both of infants and of elderly persons showed an increase upon those returned in the previous week. Six inquest cases and 8 deaths from violence were registered; and 73, or considerably more than a third, of the deaths occurred in public institutions. The causes of 24, or 13 per cent., of the deaths in the city were not certified.

THE SERVICES.

ARMY MEDICAL STAFF.—Surgeon-General William Sim Murray, M.B., has been granted retired pay (dated Oct. 28th, 1889); Deputy Surgeon-General Robert Wyatt Meadows to be Surgeon-General, ranking as Major-General, vice J. A. Marston, M.D., C.B., F.R.C.S., retired (dated Oct. 16th; 1889); Brigade Surgeon John Colahan, M.D., to be Deputy Surgeon-General, ranking as Colonel, vice R. W. Meadows (dated Oct. 16th, 1889); Surgeon-Major Francis Johnson, M.B., F.R.C.S. Irel., to be Brigade Surgeon, ranking as Lieutenant-Colonel, vice J. Colahan, M.D. (dated Oct. 16th, 1889).

ARMY MEDICAL RESERVE OF OFFICERS.—Surgeon John Adam Watson resigns his commission (dated Nov. 6th, 1889).

ADMIRALTY.—The following appointments have been made:—Staff Surgeon Francis A. Jeans to the *Pelican* (dated Nov. 19th, 1889); Surgeon Cornelius Bradley, M.D., to the *Redpole*, and Surgeon George Hewlett, M.B., to the *Curlew* (both dated Nov. 20th, 1889); Staff Surgeon Alex. B. Trowsdell to the *Australia;* Staff Surgeon Charles A. Macauley to the *Belleisle;* Surgeon Robert W. Anderson to the *Australia;* and Surgeon George Bate to Plymouth Hospital (all dated Nov. 19th, 1889).

ROYAL NAVAL ARTILLERY VOLUNTEERS (Liverpool Brigade).—The following gentlemen have been appointed Surgeons:—Charles S. Brewer, L.R.C.P., L.R.C.S. Edin.; John Edwd. Gemmell, L.S.A. Lond., and M.B., M.S. Edin. (dated Oct. 30th, 1889).

VOLUNTEER CORPS.—*Artillery:* 1st London (City of London): Robert Charles Gordon Dill, late Surgeon, Army Medical Staff, to be Surgeon (dated Nov. 19th, 1889).—*Royal Engineers:* (Submarine Miners)—The Severn Division: Acting Surgeon A. Rees to be Surgeon (dated Nov. 2nd, 1889). *Memorandum.—Infantry:* The Welsh Border Brigade: Surgeon-Major P. P. Giles, 1st Herefordshire Rifle Volunteer Corps, to be Brigade Surgeon, ranking as Lieutenant-Colonel (dated Nov. 2nd, 1889).

Correspondence.

"Audi alteram partem."

DEATH FORTY-SEVEN YEARS AFTER OVARIOTOMY.

To the Editors of THE LANCET.

SIRS,—In the issue of THE LANCET of Jan. 21st, 1837, there is a paper by Mr. King of Saxmundham, entitled "New Operations for the Removal of Abdominal Tumours." The first case he relates is an unsuccessful attempt to remove an enlarged mesenteric gland. The second case is described as "Movable Abdominal Tumour; Unsuccessful Exploration." The account leaves little doubt that the tumour was a movable kidney. Nothing was done beyond exploration, but the patient after her recovery declared that she had been "much better since the performance of the operation." The third case is "Ovarian Dropsy; Removal of the Cyst." I have several times referred to this case and the next when writing on the early history of ovariotomy in England. The operator in the third was Mr. Jeaffreson of Framlingham. The incision was only one inch and a half long. The pedicle was tied by a silk ligature, the ends cut short, and dropped into the abdomen. The patient recovered. In the fourth case Mr. King operated. He says the patient was thirty-seven years of age, but does not say if she was married or single. The incision was about three inches long. Twenty-seven pints of gelatinous fluid were collected, and some lost. There were no adhesions. A simple ligature of silk was tied round the pedicle; but this came off after the removal of the cyst, and three separate ligatures were afterwards applied, the ends cut short, and all dropped into the abdomen. The patient recovered, and I have just received the following note from an old friend, a former pupil and house-surgeon of the Samaritan Hospital, Mr. Grace Phillips of Leiston, which completes the history you published fifty-two years ago:—

"Whilst reading your work on 'Abdominal Tumours,' I noticed that you mentioned a case operated on by Mr. King of Saxmundham in 1836. You may be interested in knowing that she died in February, 1883, of ovarian dropsy with malignant disease of ovary, having therefore survived the operation for forty-seven years. My friend Mr. Wallis, of this town, who made the post-mortem examination and who attended her in her last illness, gave me this information yesterday. A niece of hers died in December, 1877, of cancer of the stomach."

It is quite unnecessary to point out to your readers the importance of making known the after-life history of patients who have recovered after any important surgical operation. I have just heard quite accidentally of the death of a lady in her seventy-seventh year upon whom I performed ovariotomy thirteen years ago, and my informant reminded me that a few years after the operation she went round the world with one of Cook's tickets.

I am, Sirs, your obedient servant,

November, 1889. T. SPENCER WELLS.

ON THE OPERATION FOR UNCIRCUMCISION.

To the Editors of THE LANCET.

SIRS,—At p. 886 of THE LANCET for Oct. 26th was a letter from Mr. L. Newton asking for information regarding the operation of restoring a circumcised person to his natural condition, alluded to in Dr. Smith's "Dictionary of the Bible."

The passage in the Dictionary containing the allusion refers to the statement in the First Book of Maccabees, written between B.C. 120 and 100 (chap. i., 15), concerning certain Jews who, in the time of Antiochus Epiphanes, are said to have got power from the king to do after the ordinances of the heathen, and who proceeded to build a place of exercise at Jerusalem according to the customs of the heathen, and who "made themselves uncircumcised." A similar expression is made use of by St. Paul in his first Epistle to the Corinthians (chap. vii., 18), when (writing A.D. 57) he says, "Is any man called being circumcised? Let him not become uncircumcised."

Taking an antiquarian interest in Mr. Newton's question, I have consulted various sources likely to throw light upon the matter, and now beg to offer the result. Before, however, directly answering the question proposed by Mr. Newton, I must remark that authorities are not entirely agreed as to the sense of the word "uncircumcised" as used either by the writer of the Book of Maccabees or by St. Paul. For example, I find that in the so-called "Speaker's Commentary," the word is supposed to have been used by St. Paul, as it was often used by some of the Old Testament writers, merely in a moral or ethical sense, having no reference to any physical operation: the "circumcision" intended being that of the heart and mind, "not made with hands." St. Paul taught that the religious state at the time of the divine call was to be retained. People circumcised were not to act as did the heathen, who were uncircumcised.

The majority of commentators, however, take a different view, and interpret the word "uncircumcised" in both the passages which I have cited, in a literal sense. They understand that surgical operative interference is referred to. They suppose that the Jews in question, ashamed of their nation, and unwilling to bear reproach at the hands of Gentiles to whom they desired to assimilate themselves, sought to obliterate "the distinctive mark of their descent by means of some further surgical procedure." As far as I can gather, the commentators in this matter follow and are guided by the words of the Jewish historian, Josephus (A.D. 38-100), who, in his "Antiquities," Book xii., ch. v. (Whiston), describes certain Jews as wishing to adopt the laws of King Antiochus and the Grecian way of living, and, gaining permission to do so, built in Jerusalem a "gymnasium"—that is, a place, most likely in the open air, where people performed athletic exercises and often bathed in a more or less naked condition.[1] He states that they then "hid the circumcision of their genitals so that even when they were naked they might appear to be Greeks."

I will not adduce at any length the comments of later writers in favour of the view that a surgical operation was alluded to in the passages under consideration. I will merely quote shortly a few authorities. For example, in the Vulgate, the passage in the Book of Maccabees is thus rendered: "Et fecerunt sibi præputia"; and that in the Epistle to the Corinthians, "Circumcisus aliquis vocatus est; non adducat præputium."

Bishop Wordsworth, in his notes on the passage in the Epistle to the Corinthians, quoting St. Jerome, uses the words "ne attrahat ferro præputium."

Dean Stanley, in his work on the Epistle to the Corinthians (see pages 98 and 106), referring to the passage before-quoted, remarks, that, in later times, circumcision "was regarded by the Greeks and Romans as an opprobrious mark of barbarism, and, accordingly, some Jews, in their desire to accommodate themselves to Grecian usages, endeavoured to efface it." The Dean alludes, in connexion with the subject, to a curious essay by Professor G. Groddeck: "De Judæis præputium attrahentibus," appended to Schöttgen's "Horæ Hebraicæ." This essay contains, I find, some very ingenious speculations.

Wetstein, a learned commentator on the Greek Testament, takes the same view; and in "Winer's Bibl. Realwörterbuch," vol. i. (art. Beschneidung), is described "a singular and painful process by which a circumcised person is in some sort restored to his natural conditions."

The Latin poet Martial alludes to the practice of the Jew concealing the mark of his circumcision.

It being then assumed that the practice of uncircumcision was resorted to, it is to be pointed out, in answer to Mr. Newton, that Celsus, no doubt inheriting the knowledge from his predecessors, describes the operation of effacing the appearances of circumcision, pretty freely; and it is interesting to remember that he lived about the middle of the first century of our era, that is, he was contemporary with the historian Josephus, whose words referring to the operation I have quoted. In the first book of his work, "De Medicinâ," chapter xxv., after stating that "if the glans penis be bare, and a person, for the sake of improving its appearance is desirous of having it covered, the thing is practicable," he describes the operation *in cases resulting from circumcision* as follows: "An incision must be made immediately around the glans, detaching the skin from the body of the penis beneath. This is not very painful, because, after thus separating it at its extremity, it may be easily stripped up to the pubes by means of the hand, without causing hæmorrhage. Moreover, the detached integument is again extended beyond the glans; then it is freely fomented with cold water and encircled with a plaster," &c.

Following Celsus, Galen, A.D. 138–200, describes the operation, and, I believe, Dioscorides, also (second century). At the end of the sixth or beginning of the seventh century, Paulus Ægineta gives an outline of the mode of operation as adopted by a certain Antyllus. In the commentary upon his description[2] it is stated that Rhases, the famous Arabian physician, and later on Fabricius ab Aquapendente (who died 1619), described the operation also.

The above observations will suffice to show that surgical interference has been invoked for the purpose of concealing the badge of circumcision, and also the method which has been followed in its performance.

I am, Sirs, yours truly,

Cavendish-square, W., November, 1889. JOHN W. OGLE.

[1] The reader may probably call to mind the Spartan yearly festival of the "gynopædia," when naked youths performed choruses and dances around the statues of certain gods.

THE SO-CALLED PRESYSTOLIC MURMUR.

To the Editors of THE LANCET.

SIRS,—Dr. Dickinson's paper on the so-called Presystolic Murmur in THE LANCET of October 19th, again bringing forward a view of the mechanism of that murmur which had been sufficiently answered on many occasions, is to me so detrimental to the diagnosis and prognosis of heart disease that I feel bound, both in the interests of patients and students, to add what little I can to the objections already raised against his theory. Curiously enough, the next paper in the same number of THE LANCET is entitled, "Why should Medical Students Study Physiology?" And in it Professor Michael Foster says: "But not all the physiology so found [in medical practice] is good; much of it, indeed, is bad. Let the student, therefore, so train himself that he may be able to detect the bad—those physiological wolves in pathological sheepskins which make their way into the medical fold and do so much damage." It is indeed when considering the question from a physiological standpoint that we see the origin of the fallacy that the so-called presystolic murmur ending with a "snapping" first sound is caused by regurgitation of blood into the auricle through a narrowed mitral orifice, and occurring with the systole of the ventricle. Now, everyone knows that in health the true apex beat and the first sound which occur together represent the commencement of the systole of the ventricle; then follows the short first silence, *during which* the systole of the ventricle is continued; then occurs the second sound, which represents the end of the ventricular systole and the commencement of the diastole or long second silence. At the end of this, and just before the first sound (commencement of ventricular systole), the auricle contracts and finishes contracting with the first sound.

Now, in mitral stenosis, Dr. Dickinson admits the existence of the first short silence between the "snap" (first sound) and the second sound; he also states that the "snap" is the end of the systole of the ventricle. Then, if so, what is the heart doing during this first silence, if the ventricular systole is finished and the aortic valves not yet closed? Dr. Dickinson's theory does not explain this, but the ordinary theory gives an easy explanation.

In mitral stenosis Dr. Dickinson brings forward two statements to support the idea that the "snap" is the end of the ventricular systole. The first is that the carotid beat takes place at the same time as the snap. And in this connexion he states that the carotid pulse signifies that the

[2] See Sydenham Society's Translation, vol. ii., p. 346.

blood sent by that particular systole "has got into the neck," and that the time between the snap and the carotid pulse is too short (practically synchronous, he says) for this to have happened. Now it is always understood physiologically that a pulse beat does not represent an actual flow of the blood current (which only travels at the rate of ·5 metres per second), but is really a wave of increased pressure in the arteries, which travels at the rate of 9 metres per second. Now taking, for the sake of argument, the distance between the aortic orifice to the carotid as about one-third of a metre, then the time taken for this pulse wave to reach the carotid would be only one-twenty-seventh of a second, a difficult interval to estimate by the unaided senses. I have repeatedly taken the carotid pulse while listening to a mitral stenotic "snap," and have found almost invariably—as seen, for example, in the undermentioned cases—that it occurs very slightly after the snap, rarely apparently synchronously, and never before it.

The second statement is that although, as everyone agrees, the actual apex beat occurs with the snap, still there is a distinct lifting up of the chest wall before this. Now a normal cardiogram of the apex beat shows distinctly a slight rise (due to the auricular systole forcing blood into the ventricle) before the marked rise due to the apex beat. Similarly in mitral stenosis, a slight preliminary lifting up of the cardiac area, as felt by the flat hand, does sometimes occur before the actual apex beat, but this it has always seemed to me is due to the blood being forced into the ventricle by the auricle; and, moreover, if present is invariably in my experience accompanied by the presystolic thrill. This lifting up, however, is absolutely before and absolutely different from the true apex beat (representing the commencement of the ventricular systole) with which Dr. Dickinson seems to confound it.

Dr. Dickinson ignores the auricular systole in his diagrams, as he says they are matters of physiological rather than clinical observation; but here we have the very essence of the presystolic murmur. Why ignore clinically the existence of a something which undoubtedly happens, although we have no sensory evidence of it in a normal heart, but which is proved as I think by this very presystolic murmur in a case of mitral stenosis?

The mitral diastolic murmur is next considered; one heard only at the apex, but at exactly the same time as an aortic regurgitant. The mechanism of this Dr. Dickinson does not thoroughly explain, but says it is auriculo-ventricular, and is direct. This of course is so, but it cannot, however, be caused by the auricular systole, as at this time (that is, immediately the ventricle has commenced to dilate, as shown by the occurrence of the second sound) the auricle is finishing its dilatation. It is probably due to two causes—one a flow directly through the mitral orifice from the pulmonary vein, where the blood is at an abnormally high pressure, and possibly also by a suction action of the ventricular dilatation. He says it is rare to find the mitral diastolic running into the so-called presystolic, but in my experience this is not so uncommon; in fact, this prolonged murmur so produced, commencing loudly, becoming more soft, and running (without interval) into a presystolic murmur, soft at first and loud at the end, I often describe to students as an "hour-glass" shaped murmur, from the manner in which it may be graphically represented.

Dr. Dickinson finds it difficult to understand (on the old theory) those cases which are often seen when the mitral diastolic murmur is separated from the so-called presystolic murmur, and wonders that anyone can imagine the existence of two *direct* murmurs, separated by an interval, the blood running through the narrowed valve the whole time. The explanation seems to me easy. Immediately the ventricle commences to dilate (as shown by the occurrence of the second sound) the mitral valve opens, the blood at a high tension in the pulmonary vein flows forcibly through, causing the mitral diastolic. The tension being relieved, the blood flows through gently with no murmur; but immediately the auricle contracts and blood again flows through at a greater rate, gently at first, finishing very forcibly, giving the typical presystolic murmur ending with the snapping first sound.

Having endeavoured to answer some of Dr. Dickinson's points, I now go on to an explanation of what the heart is doing in the first silence between the "snap" and the second sound. He says the presystolic theory implies that the snap represents the whole ventricular systole. It does nothing of the kind; the snap merely represents the closing of the mitral valve at the commencement of the ventricular systole, and the first silence is occupied by the rest of the ventricular systole, which ends not with the snap, but with the second sound, as in a normal heart. But in mitral stenosis we very frequently hear something during the first silence, which Dr. Dickinson practically ignores, and this is a murmur commencing with the snap, heard best at the apex, conducted to the axilla and back, and soft in quality like all indirect (regurgitant) murmurs, quite different from the harsh presystolic so characteristic of direct murmurs. Now this soft murmur is the true mitral systolic heard in many cases of mitral stenosis, especially in the later stages of the disease. It is often heard accompanied by a mitral diastolic, and also a mitral presystolic. Dr. Dickinson fails to see how a presystolic runs into a systole, which involves an alteration in the pose of the valve and a reversion of the blood current, "without any jar, hesitation, or loss of continuity." Now there is, however, a most distinct jar and loss of continuity between these two murmurs, and that is the "snapping" first sound which indicates the sudden change from a dilated ventricle into a contracted one. The two murmurs are not truly continuous. In many cases of mitral stenosis one only hears at the apex the "snap," followed by the mitral systolic murmur, but after the patient has exerted himself we hear at once a presystolic before the snap and a systolic after it. In other cases (examining them from year to year) we have for a long period a marked presystolic and a snap; then only a snap, and, finally, as the heart becomes weaker and dilates, a snap and a systolic murmur. All these undoubted physical signs are difficult to explain if we believe that the presystolic murmur is due to the systole of the ventricle.

Since reading Dr. Dickinson's paper I have examined twelve cases of mitral stenosis, eleven of which are in the wards of the Manchester Royal Infirmary at present, one having died last week (diagnosis confirmed by post-mortem), and have obtained the following results. In all there was the peculiar snapping first sound at the apex with an accentuated (or reduplicated) second sound at the base, these two factors being to my mind the most important points in the diagnosis of mitral stenosis. In six cases there was a slight presystolic thrill and the slight preliminary lifting up of the whole heart. In four cases there was a marked presystolic murmur, which was accompanied by a mitral diastolic, separated from the presystolic, and a mitral systolic conducted to the axilla in one case, and with a marked diastolic running into the presystolic in another case. In seven cases there was a marked mitral systolic conducted to the axilla, accompanied in one case with a slight mitral diastolic. In one case there was nothing abnormal but an accentuated second sound with breathlessness and cardiac asthma, though in June, 1889, he had a marked systolic and a snapping first sound. In two cases no second sound could be heard at the apex; in two cases the second sound was reduplicated. In nine cases the carotid pulse was felt very slightly after the "snap"; in two cases distinctly after the "snap"; in one case apparently with the "snap." In ten cases there was a history of rheumatism, and in two cases of scarlatina.

Though I am perfectly aware that in the above remarks I have brought forward nothing but what has long been known, still, as one of the "rising generation" of which Dr. Dickinson speaks, I felt bound to combat his statements, even at the risk of being thought to hold "indurated" views.

I am, Sirs, yours truly,

ERNEST S. REYNOLDS, M.D. Lond., M.R.C.P.,
Resident Medical Officer, the Royal Infirmary,
November, 1889. Manchester.

AN INSURANCE MEDICAL SOCIETY.

To the Editors of THE LANCET.

SIRS,—I venture to suggest that the medical advisers connected with the boards of the great insurance companies might usefully form themselves into a society in order to consider and settle important practical questions on which diverse action now takes place with regard to the acceptance, rejection, or loading of the lives of proposers. There can be no real scientific basis for the great variety of forms which the various offices now require to be filled up on the medical examination of proposers. One of the first works of such a society might be the settlement of a standard proposal and examination form, such form to be recom-

mended for general adoption by insurance companies. A standard form would soon be thoroughly understood, and its points appreciated by medical men throughout the country. In reinsurance business it would save much time and difficulty to the advisers of the great companies, who have to adjudicate upon a continual flow of reinsurance proposals for large amounts. Take, again, the significance of minute quantities of albumen, as reported often in medical forms. In re-examining such lives it is my own practice to sample such urine by rejecting the first portion, so as to get rid of urethral discharges. If I still find "distinct traces of albumen," I then filter the sample, so as to get rid of bladder mucus. On then examining the filtrate I often find that the "distinct traces of albumen" is not a constituent of the true renal secretion, and that the life is perfectly eligible. In these cases the mere method of sampling the urine determines whether the life is to be accepted or rejected. The significance of small amounts of copper-reducing power in the urines of amply nourished men is, in my opinion, not of great moment under certain circumstances. But now one has to reject all such lives. Ought we to do this? Here the collection of one hundred such cases from different offices, with an addendum as to the condition of each life seven years after rejection, would throw light on this question. I cannot but think that there are a large number of such questions in which good professional work would be done by monthly meetings in London of such a society. If those who would be willing to join such a society would favour me with their names, I shall be glad, provisionally, to serve as the medium of communication for a meeting on the subject.

I am, Sirs, your obedient servant,

Grafton-street, Piccadilly, Oct. 16th, 1889. JAMES EDMUNDS.

HOSPITAL OUT-PATIENT REFORM AND THE PUBLIC MEDICAL SERVICE.

To the Editors of THE LANCET.

SIRS,—The following figures, given in tabular form, will help to show how very many persons in this country are receiving free medical relief in one year:—

Number treated at 759 hospitals and dispensaries	2,828,296
,, ,, 118 ,, ,, ...	No returns.
Number receiving Poor-law medical relief (medical included)	831,353
Number treated in metropolitan fever hospitals	6,537
Number treated in provincial cities and towns	No returns.
Number receiving free private medical aid from doctors	338,600
Total number receiving free medical aid.. ..	4,004,786

As regards the number treated at the voluntary medical charities, it has been said that one patient is counted two or three times over. I should like some proof of this. The Poor-law numbers are collected twice yearly only, in July and January, so that all the Local Government Board report says is that on these two dates so many persons are in receipt of relief. If all those who received relief between these dates were counted in, the number would be very much larger. If we had the total number of fever cases treated in the various municipal fever hospitals, the total would be very much greater. As to the number who receive private free aid from doctors, I take it that each doctor treats twenty such yearly. If we refer to the fourth report of the Statistical Committee of the Medical Council of 1888, we find that there were 16,930 doctors practising in England. These multiplied by twenty will give us the deplorable fact that one in every six says he or she is unable to pay for medical advice. The above numbers do not include the 457,301 persons who received *free* vaccination in one year. Nor do they include those treated at the various charitable homes for widows, orphans, fallen women, and such like. I think if one said that one in three was provided with free medical relief in this country, a very near approach to accuracy would be made. I do not say that the medical profession is not paid something for treating some of the above, but I have no hesitation in stating that if all the money received were evenly divided over the above number it would not exceed 1*d.* per patient per annum.

One correspondent has said that our profession should be a religious calling, and not a business. Very well. But are we not told that true charity should begin at home, and that instead of depending on these benevolent institutions we should make due provision for ourselves, our wives, widows, and children? There is no reason, moreover, why a "religious" profession should be an underpaid one. Is not the labourer worthy of his hire? Each clergyman in the Scotch Church has £200 a year, at least, guaranteed him. In the Church of England each curate has about £120 a year. What doctor has such advantages as these? But the chief point to grasp is, that we doctors, in giving free treatment to hospital patients, are *not* performing a charitable act, as it is well known that many thus supplied are in no sense deserving of our charity. True charity consists in giving to the proper kind of applicants, and not in making and encouraging well-to-do people paupers. True charity also consists in not only relieving disease, but in removing the causes which produce it. Why do our hospital reports repeat each year that they are glad to say there is an increase in the number of patients? Is this anything to boast of? If disease is preventable, we should rather be ashamed of the fact. However, a sickly and false sentimentality, when combined with a lucrative and 15 per cent. philanthropy, is the fashion in some quarters.

The above figures have so far been unchallenged, and may, I feel, be taken as fairly accurate. This being so, surely it rests with the medical profession to recognise its great responsibility, and to come forward with a scheme by which good honest treatment may be provided for the working classes. The very fact that cheap or sixpenny dispensaries flourish proves the necessity for our action. If anyone will refer to the *Brit. Med. Jour.* of Aug. 10th he will find a tabular statement of the *average* weekly wages paid to sixty-nine trades-union workmen, and taken from Blue-book C 5505, this showing clearly, I think, that these classes are well able to pay small fees, and only such. This is further proved by the fact that the last census returns showed that there were 8,649,259 of the industrial classes between the ages of fifteen and sixty-five in England. Of a population of 36,000,000, over 30,000,000 of these are in receipt of salaries of less than £150 per annum. Yet how are these to pay 3*s.* 6*d.* or 5*s.* fees? The vast amount of sickness, again, proves the necessity for our action. Sir James Paget has shown that 15,317,204 men and women between the ages of fifteen and sixty-five suffer over 20,000,000 weeks' sickness; and if we calculate that each one of the entire population suffers on an average nine days' sickness, this will give us a total sick-rate for the entire community of 38,845,000 weeks. At least 13,268,950 persons are ill each year in this country. It will not do to say that the various friendly societies supply the want of a Medical Service; for of the 4,000,000 members belonging to these, about 2,000,000 are insured for sick pay and a doctor, the others belonging to burial societies. It is, therefore, to be hoped that doctors will now try to bring about a lasting reform in our hospitals. If we all tried for once to agree, and not to boast that each one had a special solution of the difficulties, then there would be very little call for any Government inquiry, which, I fear, must show that the medical profession has been doing its best to pauperise a very large portion of the well-to-do public. What ends we have to gain by doing so we must know best. At all events, the subscribing public are looking rather askance at the present state of mismanagement. Whose fault is this?

I am, Sirs, yours obediently,

Liverpool, November, 1889. ROBERT R. RENTOUL.

ST. MUNGO'S COLLEGE, GLASGOW.

To the Editors of THE LANCET.

SIRS,—Dr. Anderson, in THE LANCET of Oct. 19th, stated that the St. Mungo appointments were made by the committee and not by the governors, and that the list of appointments was published before the governors knew anything of them. In my reply of Oct. 26th I gave you the facts of the case. The appointments were made by the governors duly called, and the purpose of the meeting was stated on the notice paper, and their meeting took place on Aug. 6th, while the publication of names was not made until Aug. 20th. In his letter of Nov. 2nd to you Dr. Anderson does not apologise for his misstatements, but under cover of the suggestion that there was not a quorum of governors at the meeting he seeks still to prejudice St. Mungo's College. This suggestion is as unfounded and untrue as his former statements, and until he apologises and withdraws both the statements and the suggestion I shall not deem it necessary to take further notice of any communications from him.

I am, Sirs, your obedient servant,

W. G. BLACKIE, LL.D.,

Glasgow, Nov. 4th, 1889. Principal.

THE LATE DR. HABERSHON.

To the Editors of THE LANCET.

SIRS,—It is a matter of deep regret that the writer of the obituary notice in THE LANCET of Oct. 26th should have endeavoured to justify Dr. Habershon's opposition to the change in the system of nursing at Guy's Hospital by casting an unmerited slur upon those whom time has shown were acting for the best interests of the hospital. The new system of nursing is now fully established, and no one who knows the hospital in its present condition can doubt, now that the bitterness of the strife is over, that both patients and staff have largely benefited by the change. No progress which is worth making is made without difficulty, and if only those who took part in the controversy will forget its bitterness and recognise the benefits which have resulted, no one will pass a harsh judgment on any step which may have been taken during the heat of the strife. But it would be well to remember that it is no defence of a friend to cast undeserved reproach upon those whose views were not the same as his. I am, Sirs, yours faithfully,

Nov. 4th, 1889. CAROLINE D. ACLAND.

LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

The Education of the Deaf and Dumb.

A VERY interesting discussion took place at the Medical Institution on the 24th ult., on the education of the deaf and dumb and the report of the Royal Commission as to the respective merits of the oral and sign methods. Those who took part in the discussion comprised members who had had considerable experience of deaf-mutes, and their opinion was clearly in favour of the combined system in preference to the purely oral one. This appeared to be the general opinion of the meeting, and will commend itself to the profession at large. The language of the deaf and dumb has, like other languages, beauties of its own, as well as solid advantages. It comes naturally to deaf-mutes, and to interdict it would be as irrational, not to say impossible, as to forbid hearing children to speak.

Death of Francis James Bailey, L.R.C.P. Lond.

Within the last three weeks three well-known local practitioners have passed away, the first being Mr. Henry Lowndes, whose obituary has been recorded. Among the professional friends present at his burial was Mr. Bailey, who was on the 29th ult. seized with symptoms of apoplexy, and died on the following day, to the grief of a large circle of relatives and friends. He was the only son of the late James Bailey, surgeon, of Blackburn, and came to Liverpool many years ago as partner to Mr. Nottage, then surgeon to the Deaf and Dumb School, who subsequently left Liverpool and now resides in Lancaster. Mr. Bailey succeeded to the appointment, and only a few days before his death took part in a very interesting discussion at the Liverpool Medical Institute on the education of the deaf and dumb, both oral and by signs. He had a large practice, and took much interest in medical and other institutions of which he was a member. He was of a genial, sociable disposition, and was a general favourite with his professional and lay friends. His funeral was attended by a very large number of his medical friends, to whom his death, at the early age of fifty-six, had come as a great shock. He leaves a widow and three children.

Death of William McCheane, F.R.C.S. Eng.

The third death was that of Mr. William McCheane, which took place on Sunday last He was a native of Liverpool, and was born in 1820. He received his medical education partly at the Liverpool School of Medicine, partly at St. Bartholomew's Hospital, London, and after obtaining the old double qualification of M.R.C.S Eng. and L.S.A. in 1844 he returned to Liverpool, and was for some time house surgeon to the Liverpool Royal Infirmary. He subsequently commenced private practice here, and was in 1849 elected without opposition honorary surgeon to the Liverpool Lock Hospital, his senior colleague being Mr. Frederick Worthington, who, it may be stated, is living (though retired from practice) at the ripe age of eighty, and in the enjoyment of very fair health. Mr. McCheane continued to hold the office of surgeon till his resignation in 1882, on which he was elected consulting surgeon. In 1868 he was elected an honorary Fellow of the Royal College of Surgeons, and subsequently he became President of the Liverpool Medical Institution, which office he held for two years with much dignity and ability. He enjoyed a large practice and was extremely popular with all his patients as well as his professional brethren and friends for his genial disposition, which continued up to the last. He was for many years surgeon and for some years surgeon-major to the militia, from which latter he retired some years ago. For some time past it was noticed that he appeared to be in failing health, and, this increasing, he was attended by his old friend Mr. C. B. Wilson and Dr. Carter with unremitting care until his death, which was both peaceful and painless. The deceased was unmarried, but leaves an only sister to mourn her loss. The funeral took place on the 6th, and his remains were followed to the grave by a very large number of friends, including nearly all the leading members of the profession and his colleagues of the Royal Infirmary and Lock Hospital.

The Abattoirs.

The question as to whether the lease of the Abattoir Company shall be renewed still remains unsettled, and is the occasion of a very fierce war both in the daily papers and elsewhere. On the one hand are those who would wish to remove from the centre to the outside of the city that which is undoubtedly a very serious nuisance. Moreover, it has been proved beyond any possibility of dispute that the mortality of the district in which the abattoirs and their accompaniments are situated is considerably in excess of that in any other part of the city. Against this is the powerful influence of vested interests. Public opinion will, it is to be hoped, be on the side of sanitation. That slaughter-houses and their accessories of hide markets, piggeries, gut cleansings, &c., should be outside the city needs no argument; the region now covered by them would be much more appropriately occupied by dwellings for the lower middle and artisan class, which are greatly needed.

Liverpool, Nov. 6th, 1889.

BIRMINGHAM.

(FROM OUR OWN CORRESPONDENT.)

Midland Medical Society.

THE inaugural meeting of this flourishing Society is announced for the 16th inst., when Dr. W. T. Gairdner will deliver an address on "Drunkenness and Dipsomania: Medical and Legal Preventives and Remedies." It is difficult to predict what will be given as new upon this subject after the Temperance Congress just held in this city. Unrestrained eloquence apparently dealt with every phase of the drink question in an exhaustive and somewhat exhausting manner. The known ability of the orator on this occasion will doubtless make the evil and its remedies appear in an interesting if not novel aspect.

Dangers of Escaping Gas.

There are various degrees of folly exhibited by individuals in the daily routine of life; perhaps no greater one could be adduced than that of searching for an escape of gas with a naked light. A man of mature age has recently had occasion to be impressed with the negligence he displayed in his endeavour to find the origin of an escape of gas in his house. Besides being badly burnt on the face, head, and arms, he became aware at the same time of considerable damage done to his household property.

Hospital Sunday.

Unfortunately the weather on Sunday last was as bad as on the preceding Sunday; it was intended to supplement the collections on the latter day by contributions from those whom the wet weather had prevented from going to church on the previous Sunday. Inclement as it was, a substantial addition was made, which will have the credit of placing this year's subscriptions considerably in advance of many years past.

The Abuse of Medical Charity.

A meeting of the medical profession in Birmingham is to be called for the 30th inst., to consider a report which has been drawn up by a committee appointed for the purpose of

inquiry into the subject of hospital abuse. The report is intended to show that the voluntary hospital system as at present administered in Birmingham and elsewhere needs reconsideration and reform. Special attention is called to the following points: (*a*) That the original purpose of our medical charities has been widely departed from; (*b*) that as a result of this departure the demands made upon them are greater than they can adequately meet, and are increasing from year to year; (*c*) that a constantly increasing proportion of the community depends upon charitable medical relief in times of sickness, rather than on providence and self-help, and that this is unjust to the subscribing public, injurious to the recipients themselves, and an imposition upon the medical profession; (*d*) that in order to bring about a better state of things the voluntary hospital system needs to be reorganised, so that, on the one hand, it may work harmoniously with and supplement the Poor-law system; and, on the other hand, it may encourage and not hinder, as it now does, the development of provident institutions for medical treatment of the industrial classes. Tables are given to show the growth of the hospital system, which is given as 147 per cent. During the same period—from 1867 to 1887—the population increased by about 35 per cent., or that in twenty years hospital patients had increased more than four times as rapidly as the population. The figures show that in 1867 about one person in five received gratuitous medical treatment, and that in 1887 the proportion had arisen to the astounding height of one in every 2·6. It is true that many of the patients come from surrounding districts, and also that many of these comprise patients with venereal tickets. It is now twenty years since the late Mr. Gamgee drew attention to these circumstances in a forcible manner. It remains to be seen what will be the outcome of the proposed deliberations.

Birmingham, Nov. 6th.

NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

Newcastle.

I HEAR that the governors of the Royal Infirmary are about to take into consideration the propriety of reopening the doors of the institution to out-patients. It will be remembered that when the infirmary was made a free hospital, and the ticket system was abolished, the out-door patients also disappeared. It was supposed that attendance for this class was unnecessary, as they were already provided for by the dispensary and many excellent special hospitals of the city. I may mention that the Eye Infirmary has an out-door attendance of over 7000, while the Throat and Ear has an out-door attendance of close upon 3000. There will be, it seems, some strong opposition to this return on the part of the governors of the infirmary. It seems to be forgotten that there may be some difficulty in getting out-door patients back. As before explained, they have found their way to other institutions, and it will be a pity if we see again the overlapping of medical aid which called forth some remonstrance some few years ago.—I hear that Mr. Williamson's case of excision of the entire uterus for carcinoma has so far done well.—Mr. Jeaffreson is about to commence a course of lectures for students and practitioners at the Eye Hospital. A course is also announced at the Throat and Ear Hospital, by the senior surgeon, on the ear. These lectures will utilise the large amount of clinical material to be met with at the special hospitals.—The collections for the Sunday Hospital Fund were very generally taken at the various places of worship in Newcastle, Gateshead, and district on the 28th ult. Although the day, at least as regards the evening, was not very favourable as to weather, it is understood that the collections upon the whole rather exceed those of last year. The Saturday collections have to take place yet, and it is hoped, from the prosperous state of work in the district, that they may be also in excess.—A very sad accident took place at Wylam on Saturday last, by which a fine young man, Mr. Henry Atkinson, aged twenty-three, the youngest son of the late Dr. Atkinson of Wylam, lost his life. He had been home a few days from sea, and, being a good horseman, he was trying a new but rather spirited animal. In the course of the ride the animal bolted and got beyond control, and, in attempting to clear a six-foot gate, threw Mr. Atkinson with great violence against the gate-post, by which he sustained a severe fracture of the skull. Mr. Foulis of Wylam, his brother-in-law, was soon on the spot, and had him removed home, where he was shortly afterwards seen by his brother Dr. Atkinson of Newcastle, and also by Dr. Arnison; but Mr. Atkinson never regained consciousness and died in a few hours. Great sympathy is felt by many here for this bereavement occuring to a well-known and highly respected medical family so closely connected with Newcastle and the district.—I regret to hear that Mr. Hardie, house surgeon of the Gateshead Dispensary, has been compelled, owing to delicate health, to resign his appointment in order to take a sea voyage.

Death of Dr. H. R. Dale of Sunderland.

Much regret was felt in Sunderland on the news of the death of Dr. H. R. Dale, lately a well-known practitioner in Sunderland, who died in London last week. Dr. Dale came to Sunderland in 1878, after a distinguished career as a student, and until last July, when he was obliged to relinquish his practice on account of ill-health, he was looked upon, among the poorer classes of the town especially, as a most popular medical man. He was a great sufferer from a nervous affection, and died of exhaustion at the early age of thirty-three. He leaves a wife and two children to mourn their loss. Dr. Dale studied at University College, London, and at Brussels. He was a medalist or honours man in all his classes. He was a leading witness a few years ago in the celebrated "McManu" case, as to the application of electricity as an aid to diagnosis in paralysis &c.

Newcastle-on-Tyne, Nov. 5th.

EDINBURGH.

(FROM OUR OWN CORRESPONDENT.)

The Action by Edinburgh Lady Medical Students.

IN connexion with this now somewhat famous case, it will be remembered that Lord Kyllachy, before whom the action was raised, recommended the disputants to try to come to some amicable arrangement before the opening of the present session. This good advice was not taken, for we now have before us the decision of the judge. The pursuers sought for declaration that they were entitled to readmission to the school as professional students to complete their course of study. Otherwise payment of £500 to each of the pursuers was sought. The following is an abstract of the judgment. Lord Kyllachy thought that before 1887 the defendants had not agreed to provide a full curriculum, but that after the issue of the prospectus of January, 1887, matters were put on a totally different footing. A committee had then been organised, pupils had been secured, and there was now an express offer or undertaking to provide a full and complete curriculum of instruction, that curriculum extending over four years, and the classes for each year being specified; the fee was to be paid for the whole course, and if not paid in one sum, which it might be, the sums paid in each year were to be paid as instalments. When the two pursuers entered their second year's course—in October, 1887,—they did so under the new prospectus, and from that date were entitled to receive a complete course of instruction, which the defenders had undertaken to provide. In return, the pursuers were, in his opinion, not bound to abstain from criticism of the arrangements made for their tuition, whether by the executive committee or by the organising secretary. If the regulations laid down by the secretary seemed unnecessary or unreasonable, they were entitled to discuss them and to complain of them, and, while obeying them, to do so, if they pleased, under protest. They were not children sent to school by their parents, but grown-up women, who were providing themselves with medical education, which the defenders had agreed to furnish on specified terms. The lady students were not, in his opinion, bound to submit to be lectured by the organising secretary, still less to be insulted by her. Upon the matter of contract, the defenders did not dismiss the pursuers on the ground of any alleged fault. They did so, or rather Miss Jex Blake with the consent of Dr. Balfour did so, because they thought that at the end of the session they were entitled to do so without reason assigned and at their pleasure. The two specific charges against the conduct of the pursuers now advanced by the defenders

were: (1) The alleged breach of regulation on June 8th, 1888, by staying in Leith Hospital beyond 5 o'clock; and (2) the alleged insubordination in connexion with the matter of Miss Sinclair's certificate. In the first, the pursuers were decidedly in the wrong; but the defenders never thought of putting an end to the contract with the pursuers and the other students implicated in that matter. In regard to Miss Sinclair's certificate, his lordship did not see what the secretary, Miss Jex Blake, had to do with the matter at all, and he considered that the defenders had entirely failed to justify their action by reference to either of the specific instances which they alleged. As to the general evidence of discontent, disputing regulations, &c., of which the defenders' evidence was full, his lordship attached very little value to it. It was obviously much exaggerated, and whenever brought to the test of particulars came to nothing. The truth was, that Miss Jex Blake mistook and overrated her position, and by demanding too much, perhaps, failed to received the consideration to which she was entitled. He thought it was very possible that the young ladies, including the pursuers, sometimes forgot, under the provocation of her masterful ways, how much they owed her, and how much a title she had to their consideration and gratitude. Those, however, were topics which lay outside the sphere of legal obligation, and which he thought scarcely even affected the question of damages. Upon that matter he had only to say, in conclusion, that he did not consider that the pursuers had suffered in their character, or that they were entitled to or desired much damages. He thought the sum of £50 each would probably repay their pecuniary loss and sufficiently mark the sense which he entertained of the wrong they had sustained. His lordship accordingly gave decree for that sum, with expenses.

The Scottish Microscopical Society.

At a very large meeting of the Scottish Microscopical Society held on Friday last, Sir Wm. Turner, the President, delivered his inaugural address. After describing the objects that those who were interested in the promotion of the Society had in view, the President reviewed the discoveries that had been made by means of the microscope, giving a history of the cell theory, especially in so far as the structure, function, and mode of division of the cell nucleus were concerned. He took the opportunity of laying special stress on the work done in this region of scientific observation and deduction by an Edinburgh graduate, Dr. Martin Barry, to whom far more credit was due than was usually awarded. His papers in the Philosophical Transactions were even now well worthy of consultation by those who were engaged in histological work. Good work had been done in the past, and he hoped that there would be a continuous succession of such work in the future. On the motion of Professor Rutherford, Professor Simpson seconding, a hearty vote of thanks was accorded to Sir William Turner for his address. The list of office-bearers is a very strong one, and the Scottish Microscopical Society has certainly entered on its career under most auspicious conditions.

Edinburgh Medico-Chirurgical Society.

The following is the list of office-bearers for the ensuing year as recommended by the retiring council: — President: Professor Alex. Simpson. Vice-presidents: Dr. Clouston, Mr. A. G. Miller, and Dr. Brakenridge. Councillors: Drs. Ireland, Matthew, and A. H. F. Barbour, Mr. Charles W. Cathcart, and Drs. John Smith, Strachan, Alex. Bruce, and G. Sims Woodhead. Treasurer: Dr. Francis Troup. Secretaries: Dr. James Ritchie, 14, Charlott-square, and Mr. F. M. Caird, 21, Rutland-street. Editor of Transactions: Dr. William Craig, 7, Bruntsfield-place.

Edinburgh, Nov. 5th.

PRINCE ALFRED HOSPITAL, SYDNEY.—The Hon. E. Knox, M.L.C., presided at the monthly meeting of the board of directors held on July 11th last. The minutes of the last meeting were read and confirmed. The hon. secretary reported the receipt of a donation of £1000 to the Nurses' House Fund. A resolution was adopted to appoint an honorary assistant surgeon for diseases of women, whereupon it was announced that Mr. Freeman had offered to give gratuitously, until further notice, a course of twelve to twenty-four clinical lectures on the diseases of women each year, an offer which was accepted.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

DUBLIN.

Rotunda Lying-in Hospital, Dublin.

AN election for a Master in the room of Dr. Macan, whose tenure of office had expired, was held on Friday last. Applications from five candidates were received by the governors, who elected Dr. William J. Smyly to the vacancy. Dr. Smyly, although comparatively young, has deservedly obtained a high reputation as an obstetric physician, and his election to the Mastership of the Rotunda Lying-in Hospital was generally regarded as probable. He is an Examiner in Midwifery at the College of Physicians, and has been attached as obstetric physician to the City of Dublin Hospital, while his contributions to the branch of the profession he has selected have been of a very high order.

Royal Academy of Medicine in Ireland.

The opening meeting of the session was held on the 1st inst., when Dr. E. H. Bennett, president of the Pathological Section, delivered an address on fractures. Dr. Bennett has in this city a high reputation in this particular subject, and his remarks were extremely interesting as well as practical. Mr. Wm. Thomson has been re-elected general secretary and treasurer of the Academy.

Dinner to Sir John T. Banks, K.C.B.

The past pupils of the Richmond, Whitworth, and Hardwicke Hospitals entertained Sir John Banks, the eminent Dublin physician, to dinner last week, as a mark of esteem and in recognition of the K.C.B. which had been conferred upon him. The chairman, Dr. Gordon, proposed the toast of their guest, and said they all loved, respected, and admired him. Prof. Purser proposed the toast of the hospitals, which was responded to by Mr. William Thomson, and, in an excellent speech, he showed that the institution had maintained its high and long established reputation as a great clinical hospital. He pointed out the defects of the proposed Dublin Hospitals Bill, and dwelt on the injurious effect it would have, if passed, on their hospital as well as other institutions.

Dublin Hospital Sunday Fund.

The annual collections in aid of fifteen of the Dublin Hospitals will take place on Sunday next, the 10th inst. Last year the sum obtained amounted to £4096 10*s.* 3*d.*, being an increase of £139 1*s.* on that raised in 1888. The work done by the hospitals which participate in the fund costs about £40,000 a year, of which about 10 per cent. is supplied by the collections on Hospital Sunday.

Monkstown Hospital, co. Dublin.

A grand bazaar in aid of the building fund will be opened this week at the Town Hall, Kingstown, by her Serene Highness the Princess of Saxe-Weimar. It is intended to increase the accommodation at an estimated cost of £2500, as of late the hospital has been much overcrowded. The new wing will give accommodation for six extra beds, making a total of twenty-six when completed.

Proposed Memorial to the late Mr. Robert McDonnell.

A meeting of friends of the late Mr. R. McDonnell was held on Tuesday for the purpose of taking the necessary steps for inaugurating a memorial to the deceased gentleman. It is intended to receive subscriptions from members of the profession only, and the form of the memorial will be a marble bust and a portrait to be placed in the College of Surgeons.

Mr. J. Brennen, registrar of the Royal College of Surgeons, died on Saturday last at his residence in Dundrum. The deceased had, owing to failing health, been unable to discharge the duties of his office for a considerable time past. He was attended in his last illness by Mr. Wheeler and Mr. Rawdon Macnamara.

An election for a member of Council, Royal College of Surgeons, took place on Tuesday, when Mr. A. H. Corley was returned by a considerable majority.

The death is reported of Mr. John W. Williams, at Killucan, in his seventy-eighth year. Deceased was a

graduate in Arts and Medicine of the University of Dublin, a Fellow of the Royal College of Surgeons in Ireland, and late Surgeon-Major of the Westmeath Rifles.

Dublin, Nov. 5th.

BELFAST.

Opening of the Winter Session.

The session has now opened at the College and the various hospitals. On Thursday, Oct. 31st, the introductory address was delivered in the Royal Hospital by Dr. J. A. Lindsay, one of the physicians. The theatre of the hospital, in which the lecture was given, was crowded, and for the first time three lady students were in attendance. After a few preliminary words of welcome Dr. Lindsay announced as his subject "The Faculty of Observation, its mode of exercise, the laws that should govern its operation, and the fallacies to which it is liable." He advised the student always to employ his senses—especially sight, touch, and hearing—in a certain fixed order in the work of clinical observation, and to employ a similar fixed routine in his examination of the various organs of the body. Such a fixed routine might be superfluous for the expert, but was indispensable for the beginner. He dwelt upon the information to be derived from the careful observation of the physiognomy of disease. He then passed under review the various fallacies to which the process of observation is liable, stating and illustrating the fallacies of non-observation and of mal-observation. Without entering into the question of inductive reasoning he pressed upon his hearers the necessity of acquiring some knowledge of the logical principles which govern the process of drawing conclusions from observed signs and symptoms. In conclusion, he urged the students to aim at a high standard of individual efficiency for their own advantage, for the public weal, and for the honour of science and the credit of the profession of medicine.

The Bushmills Dispensary.

The election of a medical officer for the Bushmills Dispensary (vacant through Dr. Macaw's death) took place on Thursday, Oct. 31st. There were three candidates, but on the final vote Dr. Huey was elected.

Tuberculosis in Cattle.

The question of the existence of tuberculosis in cattle and its transmission to human beings is exciting considerable attention in Belfast since the seizure of the cattle, and the public prosecution. At the monthly meeting of the Town Council, on Nov. 1st, a resolution was carried by a majority of one recommending the Town Committee to approach the Privy Council with the view of having all such cases of tuberculosis placed on the same footing as those of pleuro-pneumonia—that is, in favour of compensating the butchers. The Town Clerk, who is a solicitor, pointed out that, so far as granting compensation was concerned, there was no analogy between pleuro-pneumonia and tuberculosis, as in the former disease animals were killed to prevent its spreading, and so causing loss to the country. The Mayor did not think they would be justified in spending the public money in compensation. Buying cattle suffering from tuberculosis, he said, would appear to come fairly under the rule *caveat emptor*. At a meeting of the North of Ireland Branch of the British Medical Association, held on Oct. 31st, the following resolution was proposed by Dr. Calwell and seconded by Dr. J. A. Lindsay: "That in view of the recent discoveries with regard to human and bovine tuberculosis, and of the opinions held by many eminent scientific authorities concerning the communicability of tuberculosis from man to animal and from animal to man, and in view of the enormous prevalence of the disease in one form or another among mankind, this meeting of the North of Ireland Branch of the British Medical Association disapproves of the practice of allowing any part of the carcase of an animal which has been shown to have been affected with tuberculosis to be sold as sound and wholesome meat." After considerable discussion, it was decided to defer the further consideration of the matter until December, when a special meeting of the Branch is to be held. A sub-committee was appointed to examine the recent literature of bovine tuberculosis, and to report to this special meeting upon the evidence of tubercle being transmitted from animals to man.

Health of Belfast.

At the monthly meeting of the Dispensary Committee, held on Nov. 4th, the medical officers of the city and suburban districts reported that typhoid fever, which had been very prevalent last month in the city, was greatly on the decrease. Four cases had been registered as having occurred at some of the military barracks; however, the epidemic had much abated, and, on the whole, the health of the city was considered fairly good.

Belfast, Nov. 5th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

The Death of Doctor Ricord.

THE death of this well-known member of our profession at the ripe age of eighty-nine removes one more of the links connecting the ends of two centuries. As you have already given a detailed account of his professional career, I would merely add that he was as well known in the social as the professional world. As evidence of this let me cite his funeral, which was one of the largest as well as one of the most imposing ceremonies of this kind which has taken place in Paris for some time past. It was timed to start from his historic house in the Rue de Tournon, at noon; but, from the hour of ten, a considerable crowd literally invaded the street and its approaches. The large courtyard of the house was beautifully draped and converted into a *chapelle ardente*. At the foot of the coffin were placed on a velvet cushion his numerous decorations. Four sisters of St. Vincent de Paul recited the prayers for the dead. At noon precisely the 4th Regiment of the Line, headed by its band, arrived, followed by a battery of the 31st Regiment of Artillery and a squadron of the 26th Dragoons armed with their lances. These military honours were rendered to the deceased doctor as a Grand Officer of the Legion of Honour. The *cortège* then set out headed by the military, while the band played Chopin's pathetic funeral march. Following these came a brigade of police under the orders of their officers. Immediately behind the hearse walked twelve religious sisters representing the various congregations which until recently supplied the nurses to the various Parisian hospitals. Next came the officers bearing the cushions of honour, on which were placed the various medals and orders. It goes without saying that the profession was strongly represented from all over France and even from the Argentine. The service at the church of St. Sulpice, which was entirely draped, was extremely impressive. The church, although large, was quite inadequate to contain the number of persons in attendance. During the service some beautiful pieces of music were rendered by a full choir, the organ of which was reinforced by the harp and other instruments. One of the most touching incidents here was the playing by M. Batta (an intimate friend of Dr. Ricord) on his violoncello of the "Adieux de Marie Stuart," a favourite musical *morceau* of his deceased friend. The religious ceremony over, the *cortège* re-formed in the same order and set out for Père la Chaise, where some eloquent parting words were delivered by Dr. Pean on behalf of the Academy of Medicine, and M. Peyron on behalf of the Assistance Publique. Altogether it was the most impressive homage to the great dead which I have seen rendered for many years.

Tuberculosis.

At the meeting of the Academy of Medicine last week, Dr. Daremberg read a note on the resistance of animals to tuberculosis. He observed that this resistance varies, not only with the species of animal, but with the channel of inoculation, the quantity of virus, and the previous state of health. The animal may be rendered more apt to contract tuberculosis when glycogen is administered to it, either by the mouth or subcutaneously. This suggests that it is hyperglycogenesis that predisposes the diabetic to grave tuberculosis. The resistance to tuberculosis is increased by feeding animals with oils and fats when the inoculation is subcutaneous. When the inoculation is direct into the veins the invaded organism can no longer benefit by the favourable elements which the oils afford it in its struggle against the virus. Cod-liver oil, the most digestible of oils, because it contains bile,

should therefore be given only in tuberculosis which is not "*d'emblée infectante.*" Cod-liver oil does not act against the bacillus of tuberculosis, but it gives resisting power to the organism, as does super-alimentation, permanent aeration, and the other general agents of hygiene. It is an agent of defence and not an agent of attack against the malady. In short, Dr. Daremberg demonstrates that in all consumptive maladies general restoratives act in enabling the organism to struggle against the poisons formed in the stomach and intestines by abnormal fermentations. These restoratives permit the kidneys and skin to eliminate the poisons produced in the cells of the organs by defective nutrition. Dr. Daremberg shows that tuberculous subjects who have good digestions live a very long time, because death ultimately ensues from denutrition before the tuberculous process is completed. He proves that one can retard the evolution of tuberculosis in certain animals by habituating them gradually to support the tuberculous virus. One might inoculate them subcutaneously with small doses of cultures of tuberculous microbes or of cultures deprived of their microbes, and containing only the soluble poisons produced by the metabolism of the latter. The same result is obtained by inoculating under the skin an emulsion of the spinal marrow of animals dying of tuberculosis. From all these facts Dr. Daremberg concludes that the tuberculous virus is a poison which may be dealt with in the same manner as mineral or organic poisons. One might almost at will increase or diminish its toxicity. On the other hand, one might augment the resistance of the organism against its destructive action. He therefore firmly believes that in the future the proper degree of attenuation to confer immunity will be found, and the virus thus transformed into a vaccine.

It will be remembered that at the meeting of the Academy on July 30th last Dr. Villemin submitted, in the name of the permanent Commission of the Congress of Tuberculosis, instructions intended for the public, in order that it might know how to defend itself against this terrible malady. This document was severely attacked by Drs. Dujardin-Beaumetz, Daremberg, Germain Sée, Lancereaux, and others, and it was finally made over to a new Commission for revision. At the meeting of Oct. 29th Dr. Villemin presented a new report in his own name. If the instructions as regards the use of cows' milk have been preserved, the same cannot be said concerning the cooking of meat, for nothing more has been said of the dangers of raw or underdone meat. It is anticipated that this subject will be warmly discussed at the Academy before any definite measures are proposed.

A New Operation.

On July 13th last Dr. Terrier performed an operation which had not been before attempted in France. He established a permanent fistula between the gall-bladder and the duodenum in a woman whose ductus communis choledochus was obliterated, and who, being affected with extreme jaundice, presented very grave symptoms. Dr. Terrier had lately seen the patient since the operation. The jaundice had disappeared, the bile passed into the intestine, and the health was excellent.

The Faculty of Paris.

The winter session of the Faculty of Paris was opened on the 3rd inst., and the following are the courses of lectures that will be delivered during the session:—Anatomy, Prof. Farabeuf; Medical Physics, Prof. Gariel; Medical Pathology, Prof. Dieulafoy; Medical Chemistry, Prof. Gautier; Surgical Pathology, Prof. Lannelongue; Operative Surgery, Prof. Duplay; Histology, Prof. Mathias Duval; Pathological Anatomy, Prof. Cornil; History of Medicine and of Surgery, Prof. Laboulbène; Forensic Medicine, Prof. Brouardel. Clinical Medicine: Prof. Germain Sée, at the Hôtel Dieu; Prof. Potain, at La Charité; Prof. Jaccoud, at La Pitié; Prof. Peter, at Necker Hospital. Mental Pathology and Diseases of the Encephalon: Prof. Ball, at Sainte-Anne Asylum. Diseases of Children: Prof. Grancher, at the Hospital for Children. Syphilitic and Cutaneous Maladies: Prof. Fournier, at the Hôpital Saint Louis. Maladies of the Nervous System: Prof. Charcot, at Salpétrière. Clinical Surgery: Prof. Verneuil, at La Pitié; Prof. Trélat, at La Charité; Prof. Le Fort, at Necker Hospital. Clinical Ophthalmology: Prof. Panas, at the Hôtel Dieu. Clinical Obstetrics: Prof. Tarnier, at the Clinical Hospital; and Prof. Pinard, at the Maternité.—Prof. Richet, who had virtually retired some years since from the Clinical Professorship at the Hôtel Dieu, has now officially resigned his appointment.

Paris, Nov. 5th.

Obituary.

MR. VINCENT RICHARDS.

MAIL advices from India announce the death, at the end of September, of Mr. Vincent Richards, M.R.C.S. Eng., 1863, F.R.C.S. Edin., 1882. Deceased, who entered the Indian Medical Service in September, 1866, was for the greater part of his service stationed at Goalundo, of which station he was the civil surgeon. He attracted considerable attention in connexion with his researches regarding snake-poison, and was appointed a member of the Indian Snake-poison Commission, being afterwards appointed Government referee in all matters connected with snake venom and antidotes. His first and chief publication was "The Landmarks of Snake-poison Literature," 1885. A pamphlet on "Hydrophobia and M. Pasteur," in which he attacks Pasteur's prophylactic system of treatment as being imperfect; and a paper on "Cholera among the Coolies on their way to Assam," in which he shows that the cholera was contracted before the coolies went aboard at Goalundo, and not from drinking impure water supplied aboard the steamers, may be mentioned among his remaining works.

ROYAL COLLEGE OF PHYSICIANS.

AT the adjourned comitia of the Royal College of Physicians, held on the 7th inst., Sir Andrew Clark, Bart., President, in the chair, a portrait of the late Dr. Wilson Fox was presented to the College by a number of his friends, and its acceptance was gracefully acknowledged by the President.

Dr. Edward Liveing and Dr. W. M. Ord were, on the nomination of the President, appointed to the Committee of Management.

Dr. W. Newman (Stamford) was admitted a Member of the College.

On the recommendation of the Management Committee, the reappointment of Drs. Stevenson, Ballard, Thorne Thorne, and Corfield as Examiners for the Diploma of Public Health was agreed to.

The Committee having drawn attention to the resolutions of the General Medical Council in reference to regulations for the diploma in Public Health, and prescribing a curriculum for candidates, it was decided that counsel's opinion should be taken as to the question whether the General Medical Council has the legal power to impose such rules.

With reference to a suggestion by the Committee that the College should declare the desirability of an extension of the period of professional study to five years, it was resolved to refer the question to the Council for report upon the proposal.

On the motion of Dr. Allchin, seconded by the Senior Censor, the subject of the appointment of Examiners in Hygiene by the Committee of Management was also referred to the Council.

A report from the Committee of Management advising certain alterations in the regulations of the Examining Board was accepted.

A detailed report, embodying recommendations for the management and general regulation of the new scientific buildings erected by the two Colleges, was received and adopted.

It was resolved, on the recommendation of the committee on the extension of the Examination Hall buildings, to provide that institution with a hydraulic lift.

NEWSVENDORS' BENEVOLENT AND PROVIDENT INSTITUTION.—The Queen has contributed £25 towards the Royal Victoria Pension Fund of the Newsvendors' Benevolent and Provident Institution.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE annual meeting of Fellows and Members of the Royal College of Surgeons was held on Thursday afternoon at the College, Mr. Jonathan Hutchinson, President, in the chair. In opening the proceedings the President referred at some length to the various topics mentioned in the Council's report of transactions during the collegiate year ending in July last, and congratulated the Fellows and Members on the progress that had been made in the various departments of College work. With reference to the points still under adjudication in the courts, he stated that if any resolutions were submitted concerning them he should have to rule them out of order. As to the question in dispute in regard to the rights of the Members to vote for the Council, it was the desire of the Council that it should now be allowed to rest. The College was now in a state of prosperity, and it prayed for peace. Dr. Elliston moved the following resolution:—"That this meeting of Fellows and Members of the Royal College of Surgeons of England, having considered the Report of the Council dated Oct. 17th, 1889, is of opinion that immediate steps should be taken to forward the introduction early in the next Parliamentary session of a Bill to amend the constitution of the College, so as to secure to the Members a just representation in and upon the governing body of the College." The resolution was seconded by Dr. Danford Thomas, and, after a brief discussion, was adopted by a very large majority. A vote of thanks to the President brought the proceedings to a close.

[A full report of the meeting will appear in our next issue.]

Medical News.

BANQUET GIVEN BY MR. BURROUGHS.—A dinner was given on Saturday, the 2nd inst., at Delmonico's new restaurant, Paris, by Mr. Burroughs to a number of fellow exhibitors and Paris physicians.

ROYAL INSTITUTION OF GREAT BRITAIN.—James Edmunds, M.D., F.C.S., has been elected a Visitor, in the room of Edward Pollock, Esq., resigned, who has been elected a Manager of the Institution, in place of Sir Crichton-Browne, resigned.

RABIES.—The number of dogs in England officially reported during the week ending Oct. 26th as affected with rabies was six against five in the previous week. All were killed. The distribution was as follows:—London, 2; York, West Riding, 2; and Essex and Kent, 1 each.

THE PASTEUR INSTITUTE FUND.—At a meeting of the committee of the fund this week, it was resolved that the Lord Mayor be requested to transmit to M. Pasteur the sum of 40,000 fr., in recognition of the services rendered by him to 200 British subjects bitten by rabid animals.

BEQUESTS AND DONATIONS TO HOSPITALS.—The late Mr. George Stevenson, of Northfields, Clapham Common, bequeathed £100 each to the Brompton Cancer Hospital and the Hospital for Consumption and Diseases of the Chest, Brompton, and £50 each to the Victoria Hospital for Children and the City of London Truss Society.—The Committee of the Leeds Musical Festival, recently held in that town, have made the following grants to the Leeds medical charities: The Infirmary, £1527; Dispensary, £470; and the Hospital for Women and Children, £352.—An anonymous donation of £150 has been received by the treasurer of the British Home for Incurables.—The net result of the bazaar recently held in Inverness, for the benefit of the Northern Counties Convalescent Home, at the Tradespark, Nairn, amounted to £1027 11*s.* 8*d.*—Mr. A. S. Haslam, the recently elected vice-president of the Derbyshire Children's Hospital, has given £100 to the funds of the institution.—The late Mr. J. H. Hunter, of Sheffield, bequeathed, free of legacy duty, £500 to the Sheffield General Infirmary, £250 to the Sheffield Public Hospital and Dispensary, £250 to the Jessop Hospital for Women, and £100 to the Sheffield Children's Hospital.—The workmen of Messrs. Spencer and Sons, Newton Steel Works, Newcastle-on-Tyne, have contributed £75 to the Newcastle Royal Infirmary.

THE BECKETT HOSPITAL.—Mr. Alderman Marsden, the Mayor of Barnsley, on Saturday, the 2nd inst., formally presented to the Governors of the Beckett Hospital an ambulance carriage, with complete fittings, provided by public subscription, at the cost of upwards of £130.

THE DENTAL HOSPITAL OF LONDON.—The annual dinner of the staff and past and present students will be held on Saturday, Nov. 30th, at the Holborn Restaurant, under the presidency of Christopher Heath, Esq. Gentlemen either now or formerly connected with the hospital or medical school who may, through inadvertence, not have received special notice, and who desire to be present, are requested to communicate with the dean at the Dental Hospital, 40, Leicester-square.

ROYAL UNIVERSITY OF IRELAND.—The following Exhibitions and Honours have been awarded:—First Examination in Medicine—Exhibitions: Second Class, £10 each (disqualified by University standing), William McMath, Daniel J. O'Connor. Honours: Second Class, William McMath, Daniel J. O'Connor. Second Examination in Medicine—Exhibitions: First Class, £25, Alexander J. Blaney. Honours: First Class, A. J. Blaney. Third Examination in Medicine—Exhibitions: Second Class, £20 each, Andrew Fullerton, James B. Moore. Honours: Second Class, Andrew Fullerton, J. B. Moore. Medical Degrees Examination, M.B., B.Ch., B.A.O.—Exhibitions: First Class, £40, John W. Wolfe. Honours: First Class, John W. Wolfe.

CRUSADE AGAINST QUACKERY IN BELGIUM.—The Belgian Medical Federation proposes to make a prolonged and searching inquiry into the existence of quackery, which is illegal in Belgium. In pursuance of this plan the West Flanders branch of the Federation has just issued a circular to its members, requesting that all illegal acts of the kind alluded to may be carefully noted, and the circumstances, with the full names and addresses of all persons able and willing to bear testimony to them, put down in writing, and sent in annually about the month of September. Absolute secrecy is guaranteed where it is desired; indeed the members are authorised, in case they do not like to report any case to the local members of the profession, to send their statement direct to head-quarters in Brussels.

ST. GEORGE'S HOSPITAL GRAPHIC SOCIETY.—On Friday, Nov. 1st, a meeting was held in the large theatre of the Medical School, Sir Prescott Hewett in the chair, to inaugurate a society for the encouragement of the pictorial and allied arts amongst past and present students of the hospital. In opening the meeting the chairman expressed his opinion of the extreme value of drawing and painting to the medical man, not only for the actual results produced, but also, if seriously followed, on account of the value of the training. The following resolution was proposed and carried: "That a society be formed in connexion with St. George's Hospital for the purpose of encouraging sketching, painting, engraving, modelling, carving, photography, and the arts of representation in general." Past students of St. George's who may be desirous of joining the society are requested to send their names to Dr. Penrose, the hon. secretary, at the hospital.

THE "DESTRUCTOR" QUESTION.—At the quarterly meeting of the Yorkshire Branch of the Society of Medical Officers of Health, held at the Bradford Town Hall on the 29th ult., Dr. McLintock read a paper on "The Treatment of Ashpit and other Refuse by means of Fryer's Destructors, to which Jones's Cremator and Horsfall's Steam Injectors have been added." He gave an account of certain works in the town, from which, despite the "destructor," had proceeded formerly smells of an offensive character, forming a serious nuisance to the neighbourhood. After describing the reason of these objectionable products escaping, he said that the Sanitary Committee saw the desirability of seeking a remedy. Of all the schemes suggested for the cure of the defect, only two seemed to offer a hope of success—namely, Jones's "cremator" and Horsfall's "steam injectors," and by a happy thought the two were combined. The result was a great increase in the heat of the furnace, and a more rapid and effectual consumption of the refuse. The destructors now consumed, roundly, about 500 loads of refuse a week, and this enormous quantity was disposed of in such a way as to be rendered quite innocuous.

PROVINCIAL HOSPITAL SUNDAY AND SATURDAY COLLECTIONS.—A collection for the South Devon Hospital, made on the 20th ult., at the Cathedral, Exeter, realised about £5; the Ludlow Hospital Sunday collection on the 27th ult., in aid of the Ludlow Cottage Hospital, amounted to £6 5*s*. The joint committee of the Glasgow Master Masons' Association, and of the United Operative Masons' Association, allocated on the 24th ult. the amount subscribed this year on behalf of the Glasgow Medical Charities as follows: Royal Infirmary, £50; Western Infirmary, £50; Victoria Infirmary, £20; Glasgow Eye Infirmary, £5; Ophthalmic Institution, £5; Dunoon Seaside Homes, £15; and the Lenzie Convalescent Home, £7 7*s*. The Hospital Sunday collection at Bolton-on-Dearne, on the 3rd inst., produced £7 1*s*. The workmen of the Jarrow Chemical Company, Limited, Friars Goose, have contributed £14 13*s*. 6*d*., and the firm a like amount, to the Hospital Saturday Fund, Newcastle-on-Tyne. The Warwick Hospital Saturday Collections Committee awarded, on the 30th ult., £55 to the Warneford Hospital and £30 to the Warwick Cottage Hospital.

VOLUNTARY EXAMINATION IN SHORTHAND FOR MEDICAL STUDENTS.—The following is the result of the examination (11 candidates) held on October 11th, 1889:—Part I. General Examination—Class I., in order of merit: Herbert Caiger, University College, and Alfred E. Russell, St. Thomas's Hospital (equal), prize; William L. Brown, London Hospital; William A. Savage, University College; David L. Soutter, King's College. Class II. (alphabetically): William P. Purvis, St. Thomas's Hospital; Arthur S. Ransome, London Hospital; Edward H. Smith, London Hospital. Part II. Special Examination in Method of Use—William L. Brown, prize; Herbert Caiger, *proxime accessit*; Alfred E. Russell and William A. Savage, commended. Examiners: E. B. Gray, M.D. Oxon., Honorary Physician to the Radcliffe Infirmary; Thomas A. Reed, Honorary President of the Phonetic Shorthand Writers' Association. N.B.—The committee desire to intimate that the general examination in proficiency for students already engaged in medical studies is exceptional, and that it will not be held after this year, in order that there may be no inducement to devote to learning shorthand the time that ought to be given to professional work. This part of the examination will therefore, in future, be restricted to first-year students.

COTTAGE HOSPITALS.—At the annual meeting of the subscribers to the Northallerton Cottage Hospital on Oct. 31st, the report, which was of a satisfactory character, and which was unanimously adopted, stated that although they had not had so many patients as in former years, the cases they had had were of a very serious nature, and had been treated with great success. The hospital had, despite all vicissitudes, passed its twelfth year, and was now firmly established.—At the annual meeting of the subscribers to the Boston Cottage Hospital, held last week, the report and statement of accounts were approved. A small charge of 5*s*. per week was made in the case of each patient; that sum, however, did not pay more than one-third of the cost of the patient's maintenance. A letter was read from Mr. H. J. Atkinson, M.P., offering to give £60 towards the reduction of the debt on the hospital if the balance were contributed by the end of the year. Several gentlemen present put their names down for £5, and a motion was carried that the secretary be instructed to send out circulars asking for subscriptions, and that Mr. Atkinson be written to asking him to extend the period of his promise.—The twenty-third annual report of the Cromer Cottage Hospital shows that during the past twelve months sixty patients from nineteen different parishes had been admitted. Notwithstanding an increase in the expenses, the committee are glad to be able again to give a good report of the funds.—On the 26th ult., Lady Meux formally laid the foundation stone of the Cheshunt Cottage Hospital. Her ladyship has been a large contributor to the building fund, and, on the occasion of the present ceremony, announced her intention of endowing the hospital to the amount of £500. The institution will be a memorial of the Queen's Jubilee, and when completed will have accommodation for six beds and two cots.—The proposed Mexborough Cottage Hospital continues to receive generous public support. The Manver's Main Colliery Company has promised to contribute £20 annually to the hospital funds. The furniture for the wards has also been promised, and the institution will be opened at Christmas.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

AMY, JOSEPH, L.R.C.S. &c., Edin., has been appointed Physician to the Paisley Infirmary.

ANNINGSON, BUSHELL, M.D., M.R.C.S., has been reappointed Medical Officer to the Cambridge Union District.

BEATSON, G. T., M.D., L.R.C.S. Edin., has been appointed Assistant Surgeon to the Glasgow Western Infirmary.

BELL, G. C., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer of the District School, Forest-gate School District.

BRAYN, RICHARD, L.R.C.P. Lond., M.R.C.S., L.S.A., has been appointed Governor and Medical Superintendent of Woking Female Convict Prison, vice Power, deceased.

BRODIE, R. C., M.B., has been appointed Junior Assistant to the Glasgow Royal Asylum.

BROWN, JOHN, M.D., has been appointed Physician for Diseases of Children to the Central Dispensary, Glasgow.

COOPER, EDWARD, L.R.C.P. Lond., M.R.C.S., has been appointed Assistant House Surgeon to the Royal Portsmouth Hospital.

COX, C. H., L.K.Q.C.P., L.M., & L.R.C.S Irel., has been appointed Medical Officer of the Collingham District, Chesterton Union.

DALZIEL, T. K., M.B., C.M. Edin., F.F.P.S. Glas., has been appointed Surgeon to the Glasgow Western Infirmary.

DUNLOP, JAMES, M.B., C.M. Glas., has been appointed Dispensary Physician to the Royal Infirmary, Glasgow, vice G. S. Middleton, M.A., M.D., resigned.

GIBB, WILLIAM FLETCHER, M.D., C.M. Glas., has been appointed Surgeon to the Paisley Infirmary.

GIBSON, L. P., L.R.C.P. Lond., M.R.C.S., has been appointed House Surgeon to the Royal Portsmouth Hospital, vice J. O'Conor, M.B., resigned.

GRANT, F., L.R.C.P. Edin., M.R.C.S., has been reappointed Medical Officer to the Fourth District and Workhouse, Market Harborough Union.

HELME, T. ARTHUR, M.B., C.M. Edin., has been appointed Resident Medical and Obstetrical Surgeon to St. Mary's Hospital, Quay-street, Manchester.

HUNT, A. H. W., M.R.C.S., L.R.C.P., has been appointed Resident House Surgeon to the Wolverhampton and Staffordshire General Hospital.

KERR, JAMES, M.A., M.B., B.C., D.P.H. Camb., has been appointed House Physician to the Bradford Infirmary.

MAYLARD, A. E., M.B., B.S. Lond., F.F.P.S. Glas., has been appointed Surgeon to the Glasgow Western Dispensary.

OSWALD, LANDEL R., has been appointed Senior Assistant to the Glasgow Royal Asylum, vice John Hay, M.D., retired.

PARSONS, GEORGE GODDEN, L.R.C.P. Lond., M.R.C.S., L.S.A., has been appointed House Surgeon to the Weston-super-Mare Hospital, vice Dr. Temple, resigned.

RENTON, J. C., M.D., M.B., L.R.C.P., L.R.C.S. Edin., has been appointed Assistant Surgeon to the Glasgow Western Infirmary.

SEATON, EDWARD, M.D. Lond., F.R.C.P., has been reappointed Medical Officer of Chelsea.

STARK, J. NIGEL, M.B. Edin., has been appointed Physician for Diseases of Children to the Central Dispensary, Glasgow.

STEDMAN, A., M.R.C.S., L.S.A., has been reappointed Medical Officer of Effingham District, Dorking Union.

WALLS, W. KAY, L.R.C.P. Lond., M.R.C.S., has been appointed Junior Surgeon on the Resident Medical Staff of St. Mary's Hospital, Quay-street, Manchester.

WELLBURN, E. D., L.R.C.P., L.R.C.S. Edin., has been appointed Medical Officer and Public Vaccinator of the Sowerby District, Halifax Union, vice Horsfall, deceased.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria-park, E.—House Physician for six months. Also Resident Medical Officer. Salary £100 per annum, with board &c.

GENERAL HOSPITAL FOR SICK CHILDREN, Pendlebury, Manchester.—Junior Resident Medical Officer. Salary £80, with board and lodging.

GREAT NORTHERN CENTRAL HOSPITAL, Holloway-road, N.—Ophthalmic Surgeon.

HOLLOWAY AND NORTH ISLINGTON DISPENSARY (address: Honorary Secretary, 68, Aldermanbury, E.C.)—Resident Medical Officer. Salary to commence at £150 per annum, with unfurnished house, coals, and gas, and an allowance of £20 per annum for servant.

LIVERPOOL ROYAL INFIRMARY.—Honorary Surgeon.

LONDON HOSPITAL, Whitechapel-road, E. — Surgical Registrarship. Salary £100 a year.

LONDON TEMPERANCE HOSPITAL, Hampstead-road, N.—Junior House Surgeon. Board and residence in the hospital.

METROPOLITAN ASYLUMS BOARD, Norfolk-street, Strand, W.C.—Assistant Medical Officer at the South-Eastern Fever Hospital, Newcross, S.E. Salary £15 per month, with board, furnished apartments, and washing.

NORTH DEVON INFIRMARY, Barnstaple.—House Surgeon. Board and lodging in the house, washing, firing, lights, and attendance. Salary £100 a year, with certain conditions.

NORTH-EASTERN HOSPITAL FOR CHILDREN, Hackney-road, E.—Junior House Surgeon for six months, at a salary of £30.

OWENS COLLEGE, Manchester.—Senior Demonstrator in Physiology. Stipend £150 per annum.

PARISH OF EDAY, Orkney (address: Inspector of Poor).—Resident Medical Officer. Salary £70 a year and practice.

PERTH DISTRICT ASYLUM.—Assistant Medical Officer. Salary £100 per annum, with board and lodging.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—Examiners in Anatomy and Physiology for the Fellowship.

SCARBOROUGH HOSPITAL AND DISPENSARY.—Assistant House Surgeon. Salary £25 for six months, with board and lodging.

SUFFOLK GENERAL HOSPITAL, Bury St. Edmunds.—Dispenser for twelve months. Salary £40 per annum, with board, lodging, and washing.

SUSSEX COUNTY HOSPITAL, Brighton.—House Surgeon. Salary £120, rising to £140 per annum, with board and lodging in the hospital, and washing.

TOWER HAMLETS DISPENSARY, White Horse-street, Stepney, E.—Resident Medical Officer. Salary £120 per annum, furnished rooms, coals, gas, and attendance.

VESTRY OF ST. GILES, Camberwell, Vestry Hall, Camberwell.—Public Analyst. The fees payable are on on a scale fixed by the Vestry, and average about £160 per annum.

WARNEFORD HOSPITAL, Leamington Spa.—House Surgeon. Salary £100 per annum, with board, lodging, and washing.

WOODSTOCK UNION, Woodstock.—Workhouse Medical Officer. Salary £35 a year, and for midwifery 10*s.* 6*d.* each case, and for each case of successful vaccination 1*s.* 6*d.* Also Medical Officer and Public Vaccinator, for the Woodstock No. 1 District. Salary £40 a year; and for midwifery 10*s.* 6*d.* each case, and for each case of successful vaccination, 1*s.* 6*d.* within two miles, and 3*s.* beyond two miles, from the officer's residence.

Births, Marriages, and Deaths.

BIRTHS.

BRUMELL.—On Oct. 30th, at Pethgate, Morpeth, the wife of Dr. Arthur Brumell, of a daughter.

CLELAND.—On Nov. 4th, at The University, Glasgow, the wife of Professor Cleland, M.D., of a son.

DUKE.—On Oct. 29th, at Kennington-park-road, S.E., the wife of Maurice S. Duke, M.R.C.S., of a daughter (Dorothy).

EVANS.—On Oct. 31st, at Denmark Lodge, Clapham-common, the wife of Dr. Lewis Evans, of a daughter.

GAY.—On Nov. 3rd, at Upper Richmond-road, Putney, S.W., the wife of John Gay, M.R.C.S., L.R.C.P., of a daughter.

HOLDSWORTH.—On Oct. 31st, at Park View, Kidderminster-road, Croydon, the wife of Ernest Charles Holdsworth, of a son.

REYNOLDS.—On Nov. 1st, at Limehurst, Stapleton-hall-road, N., the wife of Dr. Reynolds, of a son and daughter.

SEWILL.—On Oct. 31st, at Wimpole-street, the wife of Henry Sewill, L.D.S., M.R.C.S., of twins—boys.

WALE.—On Oct. 27th, at Waddon Old-road, Croydon, the wife of George Wale, L.R.C.P. Lond., M.R.C.S., of a daughter.

MARRIAGES.

BARNETT—WEBB.—On Oct. 30th, at Coalbrookdale, Shropshire, Horatio (Guy) Barnett, M.A., M.B. Cantab., of Church Stretton, Salop, to Margaret Elizabeth, youngest daughter of the late Matthew Webb, M.R.C.S., of Ironbridge, Shropshire.

BARROLL—PEACOCK.—On Nov. 2nd, at St. Peter's, Brighton, George William Barroll, late Army Medical Staff, to Annie Sophia, daughter of Edward Peacock, of Chivalry-road, Wandsworth-common.

BARTON—GOOLD.—On Oct. 30th, at St. Mary Magdalen's, Brighton, George Alex. Heaton Barton, Surgeon, to Matilda Mary Goold (Ellora), youngest daughter of the late Francis Goold, Surgeon, H.M. Bombay Army, and step-daughter of the late J. R. Roe, M.D., of Bridgnorth.

CHEETHAM—DAWSON.—On Oct. 31st, at St. Oswald's Church, Guiseley, near Leeds, W. H. Cheetham, M.D., to Louie, elder daughter of the late Smith Dawson.

LIMRICK—TAIT.—On Oct. 31st, at St. Mary-in-the-Castle, Hastings, Osborne Edward Barber Limrick, L.K.Q.C.P., L.R.C.S.I., Liverpool, to Mary Jane, fourth daughter of Sir Peter Tait.

MURRAY—DUNNE.—On Oct. 8th, at Graaff Reinet, Cape Colony, George Everitt Murray, M.B., F.R.C.S., eldest son of W. G. Murray, Esq., of Roode Bloem, to Kathleen, second daughter of Capt. J. J. Dunne, late Governor of Castlebar Prison, County Mayo, Ireland.

TATE—WHITE.—On Oct. 3rd, at Bangalore, Alan Edmundson Tate, Surgeon, Medical Staff, third son of the Rev. C. R. Tate, B.D., Rector of Trent, Somerset, to Zaidée, third daughter of Frank White, Esq., The Widenings, Loughborough.

DEATHS.

CRADDOCK.—On July 25th, at Kalanea, Kanai, Hawaiian Islands, of rheumatic fever, Sydney Ernest Craddock, M.R.C.S., elder surviving son of the late Surgeon-Major William Craddock, B.M.S.

FENTON.—On Oct. 31st, at 89, Asylum-road, S.E., George Fenton, M.R.C.S., late of Westminster and Hastings, in his 63rd year.

MCCHEANE.—On Nov. 3rd, at his residence, Shaw-street, Liverpool, William McCheane, F.R.C.S., in his 59th year.

ROCHE.—On Nov. 5th, at his residence, 78, St. Stephen's-road, Norwich, John Roche, M.D., aged 74.

SPENCE.—On Nov. 5th, at Woburn-place, London, W.C., Surgeon-Major James Atkinson West Spence, late H.M. Madras Medical Establishment.

STORRS.—On Oct. 30th, at his residence, Hall Gate, Doncaster, after three days' illness, Robert Storrs, M.R.C.S., &c., in the 54th year of his age.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

Medical Diary for the ensuing Week.

Monday, November 11.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, daily at 10 A.M.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.

CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30.

ST. MARK'S HOSPITAL.—Operations, 2.30 P.M.; Tuesday, 2.30 P.M.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour.

UNIVERSITY COLLEGE HOSPITAL.—Ear and Throat Department, 9 A.M.; Thursday, 9 A.M.

MEDICAL SOCIETY OF LONDON.—8.30 P.M. Mr. Marmaduke Sheild: A case of Cerebral Abscess due to Ear Disease evacuated by the Trephine.—Dr. Ewart: Pneumothorax and the Value of its Treatment by Aspiration, with observations on the Composition and Pressure of the Gaseous Contents of the Pleura.

Tuesday, November 12.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.

CANCER HOSPITAL, BROMPTON.—Operations, 2 P.M.; Saturday, 2 P.M.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electro-therapeutics, same days, 2 P.M.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—8.30 P.M. Mr. Bland Sutton: A case of Ruptured Tubal Pregnancy, with remarks on the Cause of Early Rupture.

Wednesday, November 13.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour. Ophthalmic Operations, Tuesday and Thursday, 1.30 P.M. Surgical Consultations, Thursday, 1.30 P.M.

ST. THOMAS'S HOSPITAL.—Operations 1.30 P.M.; Saturday, same hour.

LONDON HOSPITAL.—Operations, 2 P.M. Thursday & Saturday, same hour.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.

GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.

KING'S COLLEGE HOSPITAL.—Operations, 3 to 4 P.M.; Friday, 2 P.M.; Saturday, 1 P.M.

CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9.30 A.M.; Surgical Visits on Wednesday and Saturday at 9.15 A.M.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, BROMPTON.—4 P.M. Dr. James E. Pollock: On the Medical Selection of Lives for Assurance.

HUNTERIAN SOCIETY.—8 P.M. Clinical Evening. Mr. Clement Lucas: (1) A case of Intussusception cured by Inversion and Inflation; (2) Recurrent Orchitis in a Gouty subject.—Dr. Turner: A case of Hemiatrophy of the Tongue.—Mr. Poland: Case of Amputation through the Knee-joint. And other cases.

ROYAL MICROSCOPICAL SOCIETY.—8 P.M. Ordinary Meeting.

Thursday, November 14.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Surgical Consultations, Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.

CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Ear and Throat Department, 9 A.M.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, VICTORIA-PARK, E.—4.30 P.M. Dr. Heron: On the Question of the Contagiousness of Consumption.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.—8.30 P.M. Patients and Card Specimens at 8 P.M. Mr. C. Wray (introduced): A form of Conjunctivitis.—Mr. Silcock: Anomalous Position of the Ciliary Processes, conjoined with Shrunken Lens and Persistent Capsulo-pupillary Membrane.—Mr. Doyne: Recovery from Hemianopsia, with subsequent Autopsy.—Dr. James Anderson: Homonymous Hemianopsia, recovery, subsequent death and autopsy.—Mr. Priestley Smith: On the Size of the Cornea in relation to Age, Sex, Refraction, and Primary Glaucoma.—Prof. Snellen of Utrecht (introduced): New Methods of Treatment for (1) Symblepharon, (2) Ptosis, (3) Episcleritis.—Mr. J. Tatham Thompson: Note on a case of Hereditary Tendency to Cataract in Early Childhood.

Friday, November 15.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.—9 P.M. Prof. Hausen Grut of Copenhagen: Anomalies of the Positions of the Eyes. (Bowman Lecture.)

Saturday, November 16.

MIDDLESEX HOSPITAL.—Operations, 2 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; and Skin Department, 9.15 A.M.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, November 7th, 1889.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Maximum Temp. Shade.	Min. Temp	Rainfall.	Remarks at 8.30 A.M.
Nov. 1	29·64	S.W.	50	49	84	56	44	·04	Raining
,, 2	29·90	W.	42	41	82	55	41	·06	Bright
,, 3	29·83	S.W.	50	49	..	54	42	·04	Raining
,, 4	29·81	S.W.	52	50	68	56	49	·20	Overcast
,, 5	29·92	N.W.	39	38	58	49	38	..	Foggy
,, 6	30·31	W.	46	45	58	53	38	..	Foggy
,, 7	30·50	W.	44	43	58	49	42	..	Overcast

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed to the Sub-Editor.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "to the Publisher."*

We cannot undertake to return MSS. not used.

TREATMENT OF CARBUNCLE BY CARBOLISED SPRAY.

To the Editors of THE LANCET.

SIRS,—A few months back several letters appeared in the medical papers on the treatment of carbuncle by carbolised spray. I first saw this treatment recommended about two years ago (I forget by whom), and have since used it many times with the best possible results. Several of the carbuncles were on the face, and had they suppurated freely would have caused serious disfigurement. The spray was used night and morning, and carbolic lotion constantly applied instead of the usual poultices. I should like to hear the result of the subcutaneous injection of the carbolic acid, what strength is best to use, and if it causes much pain? I am, Sirs, yours truly,

October 30th, 1889. M.R.C.S.

C. M.—The appointments of medical officers to the Prison Service (convict or local) are appointments to the Civil Service of the country. Medical officers are not allowed to engage in private practice. The salary of an assistant surgeon begins at £250 and rises to £300. The salary on promotion to medical officer ranges from £300 to £600. A house is also given. They are entitled to pension on the Civil Service footing after ten years' service, if invalided or if sixty years of age. Further information can be had by applying to the Directors of Convict Prisons, Home Office, Whitehall, S.W.

Mr. H. Knowles.—There is a large number of works on the subject. But perhaps as valuable as any published is the series of articles by Dr. F. J. Mouat which appeared in THE LANCET of June 4th, 1881, and several succeeding numbers.

Mr. Aden Havenhance.—Such diplomas are not yet registered. Fees could not be recovered on the strength of those qualifications.

Hypatia.—The letters L.R.C.S.Ed., with others, follow the name in the Medical Register.

NURSES AT HONG KONG.

To the Editors of THE LANCET.

SIRS,—While so many efforts are being made to improve the condition and prospects of hospital nurses, the following paragraph in the annual report of the senior colonial surgeon of Hong-Kong is worthy of note. "Five French sisters of mercy will shortly arrive as nurses to the hospital." It will, no doubt, be an advantage to have trained female nurses in the Hong-Kong Government Hospital, but the only possible reason for having French sisters of mercy is that they can be imported more cheaply than English nurses. This, however, is surely not a sufficient reason for filling Government appointments with Frenchwomen, when there are hundreds of Englishwomen thoroughly trained to hospital work seeking employment. I am, Sirs, yours obediently,

Oct. 24th, 1889. M.D.

QUEEN ELIZABETH'S PHYSICIAN.

To the Editors of THE LANCET.

SIRS,—It may interest some of your readers to know that I have an official record, dated 1620, of the grant of a coat of arms by Queen Elizabeth to Richard Masters, M.D., her physician, in the year 1568; the original grant having been also accompanied by the more substantial gift of very considerable property—namely, the site of the Abbey of Cirencester, with lands in fifteen counties.

Dr. Masters was educated at All Souls' College, Oxford, admitted to the degree of M.D. in 1554, and installed Prebendary of Fridaythorpe in the Cathedral of York in 1562. He came of a Kentish family, and his heirs have lived at Cirencester Abbey from that time to the present. Sir Walter Scott, in his "Kenilworth," chap. xv., alluding to Dr. Masters, makes the Queen say, "There is at no Court in Europe a man more skilled in this holy and most useful science [of medicine] than Dr. Masters." The pedigree attached to the record shows that many members of his family have been fellows of their colleges at the universities, and otherwise very distinguished. William Masters, his cousin, Fellow of King's College, Cambridge, became orator at the University in 1563, and in that capacity received Queen Elizabeth when she visited Cambridge. He was a man of parts and eloquence, had travelled in France and Italy, and was a modern as well as a classical linguist.

Robert, son of the doctor, Fellow of All Souls', LL.D., Principal of St. Albans Hall, was Chancellor of the Diocese of Rochester, and afterwards of Lichfield and Coventry, and Thomas, another son, Master (or, as it was then termed, Minister) of the Temple at London. Michael, named in the deed, held the honourable office of Marshal of the Hall to King James; and William, the doctor's great grandson, was Fellow of Merton College, and appointed Prebendary of St. Paul's in 1666. Robert Masters, B.D., Fellow of Corpus Christi College, Cambridge, Rector of Landbeach in 1756, and my maternal great grandfather, wrote the history of his college, and was a Fellow of the Society of Antiquaries.

The deed referred to reads as follows: "Be it remembered that these arms beneath depicted were granted and confirmed unto Richard Masters, Doctor of Physic and Physician to Queen Elizabeth, the son of Robert Masters of Wissborough, in the county of Kent, with the consent and approbation of the high and mighty Prince, Thomas Duke of Norfolk and Earl Marshal of England, by letters patent, under the hands and seals of Sir Gilbert Dettrick, Knight, *alias* Garter Principal King of Arms; Robert Cooke, Esq., *alias* Clarenceux, King of Arms of the East and West parts of this Realm of England from the river of Trent southward; and William Flower, Esq., *alias* Norroy, King of Arms of the North parts of this Realm of England from the said river of Trent. Dated on the first day of December, Anno Dni. 1568, in the 10th year of the reign of Queen Elizabeth; exemplified at the request of Michael, Master of Wissborough, in the county of Kent, Gent., Marshal of the Hall to our Sovereign Lord King James, and sworn Servant to His Matie. Ratified and confirmed under the seal of the General Office, and testified under the bond of Sir William Segar, Knight, *alias* Garter Principal King of Arms. 20th Maii, Anno Dni. 1620."

Arms: A lion rampant guardant, tail forked, or., supporting between his paws a rose, arg.; stalked and leaved vert. Crest: Within a ring two snakes entwined and erect on their tails, endorsed az. Motto: Virtute et ingenio. I am, Sirs, yours truly,

Hull, Oct. 19th, 1889. T. M. EVANS.

Stoker.—We believe the Board of Trade do not issue instructions as to the examination of the sight of railway officials. The tests usually adopted in the services will be found in Sir T. Longmore's work, the "Illustrated Optical Manual," published by Longmans.

Dr. T. Harris.—We hope to find room for the Lectures in the course of two or three weeks.

CYCLING.

To the Editors of THE LANCET.

SIRS,—With reference to perineal pressure produced by cycle saddles, I wrote a few months ago pointing out the defects of the usual form of cycle saddle, and remarking on its dangers. I found the matter so serious that I was afraid I should have to give up cycling. I am happy to say, however, that I have now a saddle which entirely prevents perineal pressure. I got it at the last Stanley Show at the Crystal Palace. It is "Captain Pattisson's," and is a very peculiar saddle. I may add that I tried and looked at several other saddles at the Show, but could not find one which relieved the pressure, though several were stated to do so. I shall be happy to show anyone interested my saddle. I am, Sirs, your obedient servant,

E. D. TOMLINSON, M.D.

St. James'-road, Upper Tooting, S.W., Nov. 2nd, 1889.

Mr. W. D. Dietz (San Francisco).—Medical officers retiring from the service at their own request before completing twenty years' service on full pay may receive a gratuity of £1250 after ten years' service, £1800 after fifteen years', or £2500 after eighteen years' service, if specially recommended by the Commander-in-Chief and approved by the Secretary of State. No gratuity is given under ten years' service; after twenty years' they become entitled to a daily rate of retired pay.

Dr. A. Leitch (Gourock).—The words "scarlet fever and scarlatina" should have been placed within inverted commas, to signify the way in which the report was circulated in Plymouth and its vicinity.

T. K. D.—We shall be pleased to receive the paper.

THE ITALIAN MEDICAL CONGRESS.

MESSRS. HEARON, SQUIRE, AND FRANCIS call our attention to the fact that St. Marco Lithia Water, which they conceive to be included in Signor Cantani's general condemnation of Italian waters, quoted in our last issue (page 935), obtained a silver medal at the above Congress.

Mores, M.R.C.S.Eng.—We should recommend no measures to restrain—rather such as would encourage—the gentleman in question to complete his qualification. Its incompleteness does not prevent him practising in medicine, but it disables him from enforcing payment in medical cases.

Mrs. H. Stiff.—We are unable to assist our correspondent.

HOSPITAL CONSTRUCTION AND ADMINISTRATION.

To the Editors of THE LANCET.

SIRS,—Will any of your readers kindly give their experience of bedrooms for nurses being placed in the roof as attics (with dormer windows) over surgical wards? This is the intention of the committee of the hospital of which I am one of the honorary surgeons, and my feeling is that it is quite opposed to all modern and accepted views regarding hospital construction.—I am, Sirs, yours truly,

Nov. 4th, 1889. HOSPITAL SURGEON.

Perplexed.—The answer to the question depends on the nature of the contract between our correspondent and his principal. Speaking generally, it is understood that an assistant is prohibited from commencing practice in the town in which he has acted as assistant. He could not do so honourably without the consent of the principal.

J. W. D.—We think there is likely to be danger of the kind indicated by the use of raw meat-juice.

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Sir Spencer Wells, London; Dr. A. Duke, Dublin; Dr. Savill, London; Mr. Mark Judge, London; Dr. J. W. Ogle, London; Sir J. Sawyer, Birmingham; Dr. Bell Taylor, Nottingham; Dr. Blackie, Glasgow; Mr. Hale White, London; Sir M. Mackenzie, London; Mr. F. Marsh, Birmingham; Dr. Herschell, London; Mr. M. Sheild, London; Dr. Leslie Phillips, London; Mr. Eve, London; Mr. W. D. Butcher; Mr. Bland Sutton, London; Dr. Lediard, Cardiff; Dr. Tims, London; Mr. Hine, Ealing; Dr. Gogarty, Canterbury; Mr. Craven, Kendal; Dr. Meeres, Plymouth; Mr. A. W. Shirley, London; Dr. Ewell, Chicago; Mr. V. Jackson, Wolverhampton; Dr. Blake, Yarmouth; Prof. Humphry, Cambridge; Mr. Hutton, Manchester; Mr. A. Wilson, Leytonstone; Dr. Stephenson, Boston, U.S.A.; Dr. W. Sharp; Messrs. Ewart and Sons; Dr. A. R. Paterson, Revesley; Mr. A. Bernard; Mr. Dietz, San Francisco; Mr. Bromley, London; Mr. Kühn; Messrs. Lambert and Co.; Mr. Frost, London; Mr. Irving, London; Dr. R. Newman, New York; Mr. Crichton, Gateshead; Mr. D. W. Roberts; Messrs. Clay and Sons, London; Mr. A. Wilson, Leytonstone; Messrs. Burgoyne and Co., London; Dr. A. J. Lindsay, Belfast; Messrs. Whitehead and Co., Manchester: Dr. J. M. Smith, London; Dr. Newth, Hayward's Heath; Dr. J. W. Matthews; Messrs. Spon, London; Messrs. Dakin Bros., London; Dr. H. Woods, Highgate; Mr. T. K. Douglas, Scone; Mr. Armitage, Grimsby; Dr. Howard, California; Messrs. Masters and Sons, London; Mr. C. W. Dulles, Philadelphia; Messrs. Rowntree and Co., York; Mr. Raven, Broadstairs; Mr. A. W. Macdougall, Richmond; Mr. Buck, Bromley; Dr. Rentoul, Liverpool; Mr. H. Briggs, Liverpool; Mr. Garner, Bradford; Dr. Gwynne, Sheffield; Mr. Hardwicke, Buffalo; Dr. Tomlinson, Tooting; Mr. K. Thornton, London; Mr. W. Fowler, London; Dr. Leitch, Gourock; Mr. Heim, London; Mr. Browning, Manchester; Mr. Lucas, Paris; Dr. Tomes, India; Mr. Lamond, Glasgow; Dr. Drysdale, London; Mr. Ballachey Chelford; Mr. Brice, Sheerness; Mr. Spitta, Clapham; Messrs. Lee and Martin, Birmingham; Mr. Schofield, Wisbech; Messrs. Keith and Co., Edinburgh; Mr. Saunders, Manchester; Mr. Hodges, New York; Mr. Saxon, London; Dr. Caiger, London; Messrs. Wright and Co., Bristol; Dr. Sainsbury, London; Messrs. Hearon, Squire, and Francis, London; Mr. Hordley, Stoke-on-Trent; Messrs. Wyleys and Co., Coventry; Dr. J. More, Rothwell; Mr. Bourchier, Sussex County Hospital; Mr. Jeaffreson, Newcastle-on-Tyne; Messrs. Orridge and Co., London; Dr. Hall, Brighton; Dr. R. V. Smith; Dr. McKeown, Belfast; Dr. G. Stoker, London; Mr. R. W. Boyd; Mr. Armstrong, Newcastle-on-Tyne; Mr. Radley, London; Mr. Hornibrook, London; Dr. Murrell, London; Mr. Maycock, Leamington; Mr. Hawkings, Woodstock; Dr. Leet, Bootle; Mr. Reid, London; Bonus, London; C. F.; M. O.; Secretary, School of Massage, London; Patent Borax Co.; M.D.; M.R.C.S.; C.M.; Perplexed; A Cicestrian; Sanitary Wood Wool Co., London; Spiro, London; A. B., Shrewsbury; Lady Superintendent, London; Doctor, Bournemouth; Secretary, London Temperance Hospital; General Infirmary, Gloucester; P. E.; I. C. H., Leeds; Hypatia; J. W. D.; Club.

LETTERS, *each with enclosure*, are also acknowledged from—Dr. Taylor, Notts; Dr. Adams, London; Mr. Eye, Pontypool; Messrs. Cheston and Peet, Birmingham; Mr. Hamilton, Bradford; Messrs. Blondeau et Cie., London; Mr. Ungent, Cookstown; Messrs. Woolley, Sons, and Co., Manchester; Mr. Hammond, Monkstown; Messrs. Maythorn and Son, Biggleswade; Mr. Hughes, Carnarvon; Messrs. Schweitzer and Co., London; Mr. Godfrey, Northampton; Mr. Wood, Leeds; Mr. Tully, Hastings; Mr. Brake, Wigan; Dr. Alexander, Newcastle-on-Tyne; Mr. Dixon, Gateshead; Mr. Wallace, Glasgow; Mr. Hay, Hull; Dr. Blandford, London; Mr. Tyte, Minchinhampton; Mr. Leet, Liverpool; Mr. Allsop, London; Mr. Williams, Oxford; Dr. Balby, Lahore; Mr. Cheetham, Leeds; Mr. Lawrence, Barnstaple; Mr. M. Evans, Penybont; Dr. Maynard, Erith; Mr. Bowlan, Newcastle-on-Tyne; Dr. Vernon, Somerset; Dr. Kennard, Berks; Mr. Hubbersty, Stamford; Mr. Dixey, Ipswich; Mr. Paul, Liverpool; Mr. Purland, Woolwich; Dr. Clouston, Edinburgh; Mr. Wellington, Shanklin, Isle of Wight; Mr. Martyn, Saltash; Mr. Roche, Norwich; Messrs. Bullock and Reynolds, London; Mr. Wright, Harrogate; Messrs. Savory and Moore, London; Dr. Walter, Manchester; Mr. Good, Scarborough Hospital; Dr. Wood, Gloucester; Dr. Marsden, London; Mr. T. Mark Hovell, London; Mr. Crickmay, Framlingham; Dr. Leckie, South Wales; Mr. Day, Staplehurst; Mr. Sangster; Mr. Spencer, Basford Union; Mr. Soper, Dartmouth; Mr. Simmons, Hyde; Mr. Heywood, Manchester; Mr. Forsyth, Glasgow; Mr. Morton, Glasgow; Mr. Dale, Weston-super-Mare; Mr. Livingston, Bristol; Mr. Brown, Westgate-on-Sea; Mrs. Land, Tunbridge; Dr. Bower, Bedford; Mr. Hamilton, Yorks; Dr. Mackay, Durham; Mr. Dixon, Openshaw; Mr. Huish, London; Messrs. Hooper and Co., London; Alpha, London; Z. A. B.; Membership, London; Perak, London; Royal Western Ophthalmic Hospital; Spero, London; M., London; Secretary, Royal Southern Hospital, Liverpool; P., London; M.R.C.S., Northampton; Perth District Asylum; C. P. T., Parkstown; Alpha, Durham; Enonymised Cocoa Co., Birmingham; M.D., Birmingham; Secretary, Flintshire Dispensary; Puck, London; E. J., London; Secretary, St. Thomas's Hospital; Q. E. D., London; Sister, London; Alpha, Leeds; Delta, London; X., Birkenhead; Spiro, London; Cerium, London; Y. A. J., London; K. B. D., London; Fractures, London; Secretary, Stamford General Infirmary; M., Hammersmith; Domus, London; Towcester Union; C. T. J., London; X. C., London; Northumberland County Asylum; L. S., Edinburgh; Enquirer, Bournemouth; West Herts Infirmary, Hemel Hempstead; M.R.C.S., Kennington; J. Murray's Royal Asylum, Perth; M. N., London.

Boston Guardian (Lincolnshire), Sunderland Herald, Surrey Advertiser, Reading Mercury, Mining Journal, Torquay Times, Weekly Free Press and Aberdeen Herald, Gazette de Charleroi, Carlisle Journal, Newsagent, L'Opinion Progressiste, Hertfordshire Mercury, Journal de Charleroi, Preston Chronicle, L'Union de Charleroi, Boston Herald (U.S.), &c., have been received.

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